ISSN 0300-8320

Helminthological Abstracts

Series B Plant Nematology

1986 VOLUME 55 ANNUAL INDEXES

CAB INTERNATIONAL
MYCOLOGICAL INSTITUTE
LIBRARY
28 APR 1987

PUBLISHED BY C·A·B INTERNATIONAL

C•A•B INTERNATIONAL
Farnham Royal, Slough SL2 3BN, UK
Telephone: Farnham Common (02814) 2281
Telex: 847964 (COMAGG G) Cables: Comag Slough
Telecom Gold/International Dialcom: 84:CAU001

Director General: Don Mentz BAgrSc, BEcon
Director, Information Services: J.R. Metcalfe MA, PhD, DIC, DTA
Input Manager/Deputy Director, Information Services: C.P. Ogbourne BSc, PhD
Systems Manager: F.G. Jones
Marketing & Sales Manager: A.J. Woodcock

Helminthological Abstracts Series B Plant Nematology

is a quarterly journal prepared by the
C•A•B INTERNATIONAL
INSTITUTE OF PARASITOLOGY
395A Hatfield Road, St. Albans, Herts, AL4 0XU, UK
Tel: St. Albans (0727) 33151/6

Director
R. Muller, PhD, FIBiol

Assistant Director
P.S. Gooch, BSc, MIInfSc

Scientific Information Officers
C.E. Allsopp, BSc
E. Gascoigne, FIL
C.W. Gordon, BA, MIInfSc
P.M. Neenan, BSc, HDip in Ed
A. O'Connor, BSc
R.A. Owen, BSc
G.I. Pozniak
S.F. Siddiqi, BSc

Helminthologists
L.F. Khalil, PhD, FIBiol
L.M. Gibbons, PhD
A. Jones, PhD

Nematologists
M.R. Siddiqi, PhD, DSc, FLS, FIBiol
D.J. Hunt, PhD, FRES

Tropical Nematology Advisory and Research Unit
J. Bridge, PhD
S.L.J. Page, PhD
R.A. Plowright, PhD

Onchocerciasis Research Unit
S. Townson, PhD
C. Connelly, BSc
A.R. Dobinson, HNC

Consultant Directors
Nigel Hague, PhD
Department of Agriculture and Horticulture
University of Reading,
Earley Gate, Reading,
Berks. RG6 2AT
Prof. G. Webbe, DSc, MSc, FIBiol
London School of Hygiene and Tropical Medicine

The C•A•B International Institute of Parasitology (CIP) is one of 10 Bureaux and 4 Institutes which together form C•A•B International, an organization sponsored by member governments for the dissemination of information on research in agriculture and related subjects.

CIP also prepares *Helminthological Abstracts, Series A, Animal and Plant Helminthological* and *Protozoological Abstracts.*

For further details of the whole range of C•A•B International Publications and Services see back cover.

Orders and enquiries concerning current subscriptions and back numbers should be sent to:

Central Sales,
C•A•B International, Farnham House,
Farnham Royal, Slough SL2 3BN, UK
Tel: Farnham Common (02814) 2662

Copyright
© *C•A•B International*, 1987. All rights reserved. No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the copyright owner.

The Executive Council of C•A•B International is a signatory to the Fair Copying Declaration, details of which can be obtained from The Royal Society, 6 Carlton House Terrace, London SW1, UK.

C•A•B International does not accept responsibility for any trade advertisement included in this publication.

Helminthological Abstracts

Series B
Plant Nematology

VOLUME 55

Prepared by

CAB INTERNATIONAL
INSTITUTE OF PARASITOLOGY
ST. ALBANS HERTS

1986

ISSN 0300-8320

© *C·A·B International, 1987*

All rights reserved. No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the copyright owner.

The Executive Council of *C·A·B International* is a signatory to the Fair Copying Declaration, details of which can be obtained from The Royal Society, 6, Carlton House Terrace, London, SW1.

published by

C·A·B International
Farnham House, Farnham Royal,
SLOUGH SL2 3BN, UK,

printed by

Unwin Brothers Ltd., The Gresham Press, Old Woking, Surrey, UK.

C·A·B INTERNATIONAL

CAB INTERNATIONAL (CABI), formerly the Commonwealth Agricultural Bureaux, is a cooperative not-for-profit organization owned, administered and financed by member governments. It was established in 1928, currently has 29 members, and has the status and privileges of an international organization in the UK. A new treaty-level constitution, giving CABI the status of an Inter-Governmental Organization, is in the process of ratification.

CABI's organizational structure comprises the Review Conference of member governments, which meets every five years; the Executive Council, with one representative from each member government, which meets four times per year; and the Directorate, including CABI Headquarters and its 14 Institutes and Bureaux. The Director General is the chief executive, controlling the 375 staff, two thirds of whom are at managerial or professional level, through three Directors, for Information, Scientific and Administrative Services.

The organization exists to provide information, scientific and development services for agriculture and allied disciplines throughout the world.

INFORMATION SERVICES

The chief function of the Information Services is to provide ready access to published information on research in agriculture and allied disciplines, including rural development.

Over 100 scientists/linguists at CABI's Bureaux and Institutes scan the world literature, select the significant items, and prepare an informative abstract of each which is entered into the CAB ABSTRACTS database. With some 2 million records in the database since 1973, and 3 million more in printed journals back to 1930, the total archive provides a unique encyclopaedic resource of unsurpassed reliability and quality.

The CAB ABSTRACTS database is publicly accessible online from major international online vendors and from CABI. It is used to provide current awareness and retrospective information services in hard copy and machine-readable form. Chief among these are 46 printed abstract journals, which are taken by 10,000 subscribing organizations worldwide. New journals are started in response to changing users' needs or if sponsors guarantee the circulation. Users needing more specific information may select outputs that match their particular requirements, helped if necessary by CABI's subject experts; outputs are supplied as magnetic tape, computer printout, microfiche or floppy disk. The database is also available on optical disk (CD-ROM), a new technology ideally suited to developing countries. To complete the service, photocopies of original articles are provided on request through the CABI Library Services.

Text processing, database production and data retrieval are provided by CABI's in-house computer centre, which also offers these services to other organizations. The centre is already recognized as the focal point for online access to a portfolio of small bibliographic databases and databanks relevant to agriculture, medicine and development.

Other functions of the Information Services include compilation of specialized databanks and directories, publication of primary journals, authoritative reviews and books, and training in information transfer for librarians, documentalists and information specialists.

SCIENTIFIC SERVICES

The Scientific Services of CABI are provided by four Institutes. Three deal with the science of taxonomy and provide identification and related services; the fourth deals with biological control.

CAB International Institute of Entomology (CIE)

CIE provides an identification service for insects, mites and other arthropods, especially species that are of actual or potential important as pests, parasitoids, predators and pollinators or are otherwise relevant to agriculture, forestry or related subjects. Contract research is also undertaken in these fields. The Institute's taxonomists work in the British Museum (Natural History) where they have access to the Museum's 23 million reference specimens of insects and mites, an incomparable aid to authoritative identifications and research on arthropod classification.

CAB International Mycological Institute (CMI)

CMI is the largest centre for systematic mycology in the world and provides a service for the identification of filamentous fungi and plant-pathogenic bacteria. It has about 300,000 dried reference specimens, a culture collection of more than 12,500 isolates, an extensive library, a Biodeterioration and Industrial Services Laboratory, a Biochemical Laboratory, and a Plant Pathology Liaison Unit. The Institute provides a wide range of consultancy and contract services for plant pathologists and industry. It incorporates the UK National Collection of Fungus Cultures and the Biodeterioration Centre.

CAB International Institute of Parasitology (CIP)

CIP provides an identification service for plant-parasitic and entomophilic nematodes, and helminth parasites of animals and man. The reference collections contain over 65,000 specimens, and an extensive specialist library is maintained. The Tropical Plant Nematology Advisory and Research Unit provides practical advice on plant-parasitic nematodes and their control worldwide, and the Institute also houses the WHO Filarial Reference Collection.

CAB International Institute of Biological Control (CIBC)

CIBC provides information and advice on biological control, undertakes research and implementation of programmes on biological control of major pests and weeds, and participates in integrated pest management programmes in association with other agencies. It has its headquarters in the UK but operates also from stations at Delémont, Switzerland; Bangalore, India; Rawalpindi, Pakistan; Nairobi, Kenya; and Curepe, Trinidad, West Indies.

All four Institutes carry out research, and offer a wide range of training activities from postgraduate studentships to special training courses both in the UK and abroad.

DEVELOPMENT SERVICES

The Development Services provide a focus for CABI consulting activities.

The Development Services Group was established in 1986 to provide a sharper focus for CABI's consulting activities. It draws heavily on the unique scientific expertise and information resources available in the CABI Institutes and Bureaux, and its activities are backed by nearly sixty years of CABI involvement in science and world agriculture.

The Development Services offer practical advice and assistance on many pest-related or environmental problems in agriculture. Specific services include:

- project appraisal
- advice in a range of scientific disciplines
- research supervision
- research evaluation
- project implementation.

These services are offered in situations ranging from short-term individual consultancies to project components and major development projects. The current focus is on:

- integrated pest management programmes
- national crop protection services
- pest/disease identification and control
- crop-orientated pest and disease surveys.

One component of these activities that can be extended to any branch of agriculture or development is the provision of a comprehensive information service, involving expert review and analysis of all relevant literature.

HEADQUARTERS SENIOR STAFF, CONSULTANT DIRECTORS, DIRECTORS AND OFFICERS-IN-CHARGE OF CABI's INSTITUTES AND BUREAUX

Headquarters

CAB International
Farnham Royal, Slough SL2 2BN, UK
Telephone: Farnham Common (02814) 2281
Telex: 847964 (COMAGG G) Cables: Comag Slough
Telecom Gold/International Dialcom: 84:CAU001

Director General: Don Mentz BAgrSc, BEcon
Director, Information Services: J.R. Metcalfe MA, PhD, DIC, DTA
Director, Scientific Services: E.K. Woodford OBE, MSc, PhD, FIBiol
Director, Administrative Services: T. Martin FCA
Input Manager/Deputy Director, Information Services: C.P. Ogbourne BSc, PhD
Systems Manager: F. G. Jones
Marketing & Sales Manager: A. J. Woodcock
Manager, Administration & Personnel: L.D. Poole MBE

Institutes

CAB International Institute of Entomology, 56 Queen's Gate, London SW7 5JR. Tel: 01-584-0067/8
Director: K.M. Harris DSc, DIP AgrSci, DTA

CAB International Mycological Institute, Ferry Lane, Kew, Richmond TW9 3AF
Director: D.L. Hawksworth PhD, DSc, FLS, CBiol, FIBiol

CAB International Institute of Parasitology, 395A Hatfield Road, St. Albans, AL4 0XU, Herts.
Director: R.L.J. Muller BSc, PhD, FIBiol

CAB International Institute of Biological Control, Imperial College, Silwood Park, Ascot, Berks SL5 7PY
Director: D.J. Greathead BSc, ARCS, PhD, DSc, FIBiol

West Indian Station, Gordon St., Curepe, Trinidad, West Indies
M. Yaseen MSc, PhD (Entomologist-in-Charge)

European Station, 1 Chemin des Grillons, CH-2800, Delémont, Switzerland
K.P. Carl DNatSc ((Entomologist-in-Charge)

Indian Station, Post Bag 2484, Hebbal Agricultural Farm, P.O. Bangalore 560024, India
M.J. Chacko MSc, PhD (Entomologist-in-Charge)

Kenya Station, c/o Kenya Agricultural Research Institute, P.O. Box 30148, Nairobi, Kenya
I.A.D. Robertson BSc (Entomologist-in-Charge)

Pakistan Station, PARC-CIBC Station, P.O. Box 8, Rawlpindi, Pakistan
A.I. Mohyuddin MSc, PhD (Entomologist-in-Charge)

Bureaux

Agricultural Economics, Dartington House, Little Clarendon St., Oxford OX1 2HH
Officer-in-Charge: Miss M.A. Bellamy BSc, DipAgricEcon, MIInfSci

Animal Breeding and Genetics, AFRC Institute of Animal Physiology and Genetics Research, Edinburgh Research Station, The King's Buildings, West Mains Road, Edinburgh EH9 3JX
Director: *J.D. Turton BSc, MRCVS, DTVM

Animal Health, Central Veterinary Laboratory, New Haw, Weybridge, KT15 3NB, Surrey
Director: R.M. Mack FRCVS

Dairy Science & Technology, Lane End House, Shinfield, Reading, Berks. RG2 9BB
Officer-in-Charge: J.M. Davies BSc, APMI

Forestry, Commonwealth Forestry Institute, South Parks Road, Oxford OX1 3RD
Officer-in-Charge: K.M. Becker PhD

Horticulture & Plantation Crops, East Malling Research Station, Maidstone, Kent ME19 6BJ
Director: D.J. O'D. Bourke MA, DipAgr, FLS

Nutrition, Rowett Research Institute, Bucksburn, Aberdeen AB2 9SB, Scotland
Officer-in-Charge: D.J. Fleming BSc, MSc, MIBiol

Pastures & Field Crops, Animal & Grasslands Research Institute, Hurley, Maidenhead, Berks. SL6 5LR
Officer-in-Charge: †P. Wightman BSc

Plant Breeding & Genetics, Department of Applied Biology, Pembroke Street, Cambridge CB2 3DX
Director: Miss O. Holbek BSc

Soils, Rothamsted Experimental Station, Harpenden, Herts. AL5 2JQ
Director: B. Butters MSc, DipAgr, DTA, DIC, ARCS

*Head, Animal Sciences Group
†Head, Plant Sciences Group

C·A·B INTERNATIONAL

EXECUTIVE COUNCIL – OCTOBER 1986

Member	*Representing*
S. MUTONDO (Chairman)	Zambia
P. BAIGENT (Vice Chairman)	New Zealand
G.M.P. MYERS	United Kingdom
Dr. M. CHAPPELL	Canada
Dr. MILTON MOORE	Australia
S.N. RAO	India
A.C. GOONESEKERA	Sri Lanka
F.A. TSEGAH	Ghana
MOKHTAR BIN MOHAMED	Malaysia
N.C. ONIANWA	Nigeria
J. PAPANICOLAOU	Cyprus
Mrs. A. BALLAH-CONTEH	Sierra Leone
C.N.B. MWAKANG'ATA	Tanzania
F. McGILCHRIST	Jamaica
S. KANGAL	Trinidad & Tobago
A.S. OKWONGA	Uganda
C.M. KANG'E	Kenya
A.L.C. BANDA	Malawi
V.S. NDIAYE	The Gambia
C.J.E. BARKER	Guyana
L.C. LEKOA	Botswana
A. BOOLAKY	Mauritius
K. TAVOLA	Fiji
A.B.M. AHSANULLAH	Bangladesh
R. DEMERITTE	The Bahamas
A.P. TABERENG	Papua New Guinea
F. MADZIMA	Zimbabwe
(to be nominated)	Solomon Islands
DANIAL BIN HAJI HANAFIAH (resides in Brunei)	Brunei Darussalam
R.J. WILSON	Dependent Territories
Prof. J.I. FURTADO (Observer)	Commonwealth Science Council

C·A·B INTERNATIONAL

LIAISON OFFICERS – OCTOBER 1986

Contributing Country	*Liaison Officer*	*Address*
United Kingdom	Under Secretary	Agricultural & Food Research Council, 160 Great Portland Street, London W1N 6DT
Canada	Dr. R. Trottier	Research Coordinator (Protection) Research Branch, Agriculture Canada, Sir John Carling Bldg. Ottawa, Ontario, KIA OC5
Australia	Dr. J.B. Allen	Commonwealth Scientific & Industrial Research Organization, P.O. Box 225, Dickson, ACT 2602
New Zealand	Dr. J.H. Troughton	Asst. Director-General, Department of Scientific & Industrial Research, Private Bag, Wellington
India	Dr. N.S. Randhawa	Director General, Indian Council of Agricultural Research, Krishi Bhavan, New Delhi, 110001
Sri Lanka	Dr. I. Goonewardena	Director of Agriculture, Dept of Agriculture, Peradeniya
Ghana	Executive Chairman	Council for Scientific & Industrial Research, P.O. Box M32, Accra

Malaysia	Kamaruddin bin Siaraf	Principal Asst. Secretary, International Division, Ministry of Agriculture, Jalan Mahameru, Kuala Lumpur
Nigeria	The Director	Agricultural Sciences Research Dept., Moor Plantation, Private Mail Bag No. 5382, Ibadan
Cyprus	Dr. A, Louca	Director-General, Ministry of Agriculture & Natural Resources, Nicosia
Sierra Leone	Senior Lecturer	Njala University College, University of Sierra Leone, PMB. Freetown
Tanzania	Director of Agriculture	Ministry of Agriculture, P.O. Box 9071, Dar-es-Salaam
Jamaica	A.C.MacDonald	Director, Research & Development, Ministry of Agriculture, P.O. Box 480, Kingston 6
Trinidad & Tobago	Chief Technical Officer (Crop Research)	Ministry of Agriculture, Lands and Food Production, Research Div. Central Experiment Station, Centeno, P.O., Arima, Trinidad & Tobago.
Uganda	Permanent Secretary	Ministry of Agriculture & Forestry, P.O. Box 102, Entebbe
Kenya	W.W. Wapakala	Ministry of Agriculture, P.O. Box 30028, Nairobi
Malawi	Chief Agricultural Research Officer	Ministry of Agriculture & Natural Resources, P.O. Box 30134, Capital City, Lilongwe 3
Zambia	Permanent Secretary	Ministry of Agriculture & Water Development, Mulungushi House, Independence Avenue, P.O. Box 50291, Ridgeway, Lusaka
The Gambia	Permanent Secretary	Ministry of Agriculture & Natural Resources, The Quadrangle, Banjul
Guyana	Deputy Chief Agricultural Officer (Research)	Ministry of Agriculture, P.O. Box 1001, Georgetown
Botswana	Permanent Secretary	Ministry of Agriculture, Common Service Division, Private Bag 0028, Gabarone
Mauritius	K. Lutchmeenaraidoo	Chief Agricultural Officer, Agricultural Service, Reduit
Fiji	Permanent Secretary	Ministry of Agriculture, Fisheries and Forests, Rodwell Road, Suva
Bangladesh	The Executive Vice-Chairman	Bangladesh Agricultural Research Council, New Airport Road, Farm Gate, GPO Box 3041 Dhaka, Bangladesh
The Bahamas	Director of Agriculture	Ministry of Agriculture, Fisheries & Local Government, P.O. Box 3028, Nassau
Papua New Guinea	The Secretary	Dept of Primary Industry, P.O. Box 417, Konedobu
Zimbabwe	P.R.N. Chigaru	Asst. Director (Livestock & Pastures Research), Dept of Research & Specialist Services, Ministry of Agriculture, P.O. Box 8108, Causeway, Harare
Solomon Islands	B.G.C. Smith	Ministry of Agriculture & Lands, P.O. Box G13, Honiara
Brunei Darussalam	Dr. Morni bin Othman	Dept of Agriculture, Ministry of Development, Negara, Brunei Darussalam

OFFICIAL CORRESPONDENTS OF THE COMMONWEALTH INSTITUTE OF PARASITOLOGY

Plant Nematology

ANTIGUA Director of Agriculture, Department of Agriculture, Friars Hill, Antigua, West Indies.

AUSTRALIA Professor H.R. Wallace, University of Adelaide, Waite Agricultural Research Institute, Dept. of Plant Pathology, Glen Osmond, South Australia 5064.

BAHAMAS Director of Agriculture, Dept. of Agriculture and Marine Products, P.O. Box 28, Nassau.

BARBADOS To be nominated.

BERMUDA Director of Agriculture, Agricultural Station, Paget East.

BOTSWANA Chief Research Officer, Private Bag 22, Gaborone.

BRITISH SOLOMON ISLANDS Senior Agricultural Officer, Dept. of Agriculture, Honiara, British Solomon Islands Protectorate.

BRITISH VIRGIN ISLANDS Superintendent of Agriculture, Agricultural Dept. Tortola, British Virgin Islands, West Indies.

BRUNEI State Agricultural Officer, Brunei.

CANADA Dr. C.D. McKeen, Research Coordinator (Plant Pathology), Research Branch, Agriculture Canada, Ottawa, Ontario, K1A 0C6, Canada.

CYPRUS Dr. A. Papasolomontos, Agricultural Research Officer (Plant Protection), Agricultural Research Institute, Nicosia.

GHAMBIA P.E. Bendell, Crop Protection Officer, Yundum Agricultural Station, via Bathurst.

GHANA To be nominated.

GUYANA To be nominated.

HONG KONG D.A. Higgins, c/o Director, Agriculture and Fisheries Dept., Canton Road Government Offices, 393 Canton Road, 12th-14th Floor, Kowloon.

INDIA Dr. A.R. Sheshadri, Division of Nematology, Indian Agricultural Research Institute, New Delhi-12.

JAMAICA Chief Plant Protection Officer, Ministry of Agriculture and Fisheries, Kingston 6. (Attention Mr. A.G. Naylor).

KENYA Chief Research Officer, c/o Ministry of Agriculture, P.O. Box 30028, Nairobi.

MALAWI To be nominated.

MALAYSIA

MALAYA To be nominated.

SABAH To be nominated.

SARAWAK Director of Agriculture, Dept. of Agriculture, Kuching.

MAURITIUS To be nominated.

MONTSERRAT Director of Agriculture, Agricultural Dept., The Groves, Montserrat, West Indies.

NEW ZEALAND W.M. Wouts, Nematology Section, Entomology Division, P.O. Box 223, Nelson.

NIGERIA Director, Federal Dept. of Agricultural Research, Moor Plantation, Private Mail Bag 5042, Ibadan.

LAGOS STATE Permanent Secretary, Ministry of Agriculture and Natural Resources Trade and Industry, Lagos.

WESTERN STATE Permanent Secretary, Ministry of Agriculture and Natural Resources, Ibadan.

NORTH-CENTRAL STATE Director, Institute of Agricultural Research, Samaru, Private Mail Bag 1044, Zaria.

MID-WESTERN STATE Permanent Secretary, Ministry of Agriculture and Natural Resources, Benin City.

ST. HELENA Agricultural and Forestry Officer, Dept. of Agriculture and Forestry, Scotland.

SEYCHELLES Director of Agriculture, Dept. of Agriculture, P.O. Box 54, Victoria, Mahe.

SIERRA LEONE Dr. E.R. Terry, Dept. of Agronomy, Fac. of Agriculture, Njala University College, Freetown.

SRI LANKA Dr. P. Sirapalan, Tea Research Institute of Ceylon, Talawakelle.

SWAZILAND G.M. Maina, Chief Agricultural Officer, Box 162, Mbabane.

TANZANIA Director of Agriculture, Dept. of Agriculture, P.O. Box 159, Zanzibar.

TRINIDAD & TOBAGO To be nominated.

UGANDA Senior Entomologist, Kawanda Research Station, P.O. Box 265, Kampala.

WINDWARD ISLANDS

GRENADA Superintendent of Agriculture, Dept. of Agriculture, St. Georges.

ST. LUCIA Agricultural Superintendent, Dept. of Agriculture, Castries, St. Lucia, West Indies.

ST. VINCENT Superintendent of Agriculture, Dept. of Agriculture, Kingstown St. Vincent, West Indies.

ZAMBIA Deputy Director (Research), Mount Makalu Research Station, P.O. Box 7, Chilanga.

Helminthological Abstracts
Series B Plant Nematology

CONTENTS VOLUME 55

REVIEW ARTICLE

Associations between nematodes and bacteria. By G. O. Poinar, Jr., and E. L. Hansen 61

Plant hosts and surveys	1	31	83	121
Arthropod hosts	4	34	86	124
Associations	5	36	87	125
Marine Nematodes	6	37	89	127
Morphology, taxonomy and nomenclature	7	38	89	127
Resistance	10	44	95	130
Pathogenesis and pathology	13	47	100	134
Biochemistry, physiology and behaviour	16	48	103	137
Life-history	18	50	106	139
Ecology	18	50	106	140
Geographical distribution	–	52	–	143
Control	21	52	109	143
Technique	25	56	116	148
Cytology, genetics and evolution	26	56	118	149
Unclassified	29	57	–	150
Reports	29	57	119	150
Conferences	29	58	119	–
Books	29	58	120	150

AUTHOR INDEX 151

SUBJECT INDEX 157

ERRATA

(Lines are counted from the beginning of the bibliographic data in each item)

Volume 55

Page	*Abstract*	*Line*	
92	652	4&9	For '*selasi*' read '*salasi*'

HELMINTHOLOGICAL ABSTRACTS
SERIES B
PLANT NEMATOLOGY

Volume 55, 1986

This journal is prepared by the staff of the CAB International Institute of Parasitology, 395A Hatfield Road, St. Albans, Hertfordshire, AL4 OXU, England.

Director: Ralph Muller, Ph.D., F.I. Biol.
Consultant Directors: Prof. G. Webbe, D.Sc., M.Sc., F.I. Biol.
N. G. M. Hague, Ph.D.
Assistant Director: P. S. Gooch, B.Sc., M.I. Inf.Sc.

Scientific staff: Caroline E. Allsopp, B.Sc., J. Bridge, Ph.D., Carole Connelly, B.Sc., A. R. Dobinson, HNC, Elisabeth Gascoigne, F.I.L., Lynda M. Gibbons, Ph.D., C. W. Gordon, B.A., M.I.Inf.Sc., D. J. Hunt, Ph.D.,F.R.E.S., Arlene Jones, Ph.D., L. F. Khalil, Ph.D., Janet E. Machon, B.Sc., Patricia M. Neenan, B.Sc., A. O'Connor, B.Sc., Rita A. Owen., B.Sc., (part-time), Sam L. J. Page, Ph.D., R. A. Plowright, Ph.D., Grazyna I. Pozniak, M. R. Siddiqi, D.Sc., Safia F. Siddiqi, B.Sc., S. Townson, Ph.D.

Supporting staff: E. Beryl Bull (part-time), Beryl Cunningham, Sheila N. Eames, (part-time), S. P. Edwards, B.A., Barbara Gibson, Audrey M. Godman (part-time), Anne F. Hall (part-time), Susan Hines, Olive Linton, A. Macarthur, Gillian Macey, Berit I. Pedersen, B.A., R. J. Tranfield.

READER'S GUIDE

Helminthological Abstracts, Series B, Plant Nematology provides a quarterly summary of the recent world literature on all aspects of work on nematodes parasitic in or on plants, including morphology, taxonomy and nomenclature, cytology, genetics, biochemistry, development, life-history, ecology and the pathology, epidemiology and control of the infections they cause.

Coverage also includes literature on free-living nematodes in marine or fresh water or in the soil and on nematodes parasitic in insects and other arthropods as final hosts. Coverage of the literature on nematodes of animals and Man will be found in *Helminthological Abstracts, Series A, Animal and Human Helminthology*. Areas of interest to nematologists outside or peripheral to the scope of *Helminthological Abstracts, Series B*, such as the plant genetics of resistance to nematodes, the biology and control of arthropod vectors and predators of nematodes, and diseases due to bacteria, viruses and fungi commonly associated with nematode infections, are fully covered by other CAB abstract journals, respectively, *Plant Breeding Abstracts, Review of Applied Entomology Series A – Agricultural* and *Review of Plant Pathology*.

The abstracts enable readers to keep themselves informed of the progress of current work and allow them to decide whether or not they need to see the original document.

Photocopies of most of the papers abstracted are obtainable through the Library of the Commonwealth Institute of Parasitology, but to satisfy copyright regulations enquirers are urged to use a copy of the copyright form printed in the front of each issue of *Helminthological Abstracts*.

Over 2000 serial publications as well as books, reports and theses are regularly examined for relevant material, principally research findings and reviews. Some background papers may be abstracted briefly and others of local or marginal interest are referred to by title only. Authors' summaries are used whenever they are considered suitable. A special effort is made to provide informative abstracts of papers in the less commonly used languages and from less easily obtained journals.

When consulting an entry the reader should remember that the title is an integral part of the abstract and may include information necessary for its full comprehension.

In a typical entry the name(s) of the author(s) are followed by the title of the paper in English. If the paper is written in a language other than English, the English translation of the title is enclosed in square brackets. The title in the original language, if not English, follows, except for Arabic, Chinese, Japanese etc. Cyrillic characters are transliterated for the titles of books but not for the titles of papers. Journal titles are next given in unabbreviated form. The year of issue, in round brackets, the volume number, part number in round brackets, and first and last page numbers of the article complete the basic citation.

Supplementary details given in square brackets include the language of the paper (a two-letter abbreviation with an initial capital) and the language of any summary or summaries in languages other than that of the paper (a similar abbreviation without an initial capital); the number of references, plates, figures, graphs, maps, tables may also be included. The address of the first author is usually given in abbreviated form. Some commonly used abbreviations are listed in this issue.

Conference papers, whether published in book form or as proceedings, appear either as a single general abstract under the classification "Conferences" or as a number of abstracts under appropriate classifications with a single general entry under "Conferences". Conference abstracts are not abstracted.

Every effort is made to achieve consistency in the nomenclature of nematodes used in *Helminthological Abstracts*. Preferred names, as defined by the International Commission for Zoological Nomenclature are used in the abstracts, sometimes introduced by square brackets, and also in the subject index. Hosts are usually given as in the original paper although an effort is made to use the Latin name, if it is known, in preference to the common name. Only the well known crops are referred to by their common names.

Nematicides and other pesticides used for, or associated with, the control of nematode infection are usually given in the abstract in the same form as in the original paper, but the preferred form will be used in the subject index.

Within *Helminthological Abstracts* the abstracts are arranged under Classifications that reflect the main emphasis of the work. When more than one aspect is covered in a paper there may be a cross reference between Classifications but the abstract will appear only once. However, the Classifications "Taxonomy and Nomenclature" has highest priority so that abstracts containing descriptions of new taxa will appear in this section even if the main part of the work may be appropriate to some other Classification. The Classification must be seen as a rough guide only and reference should be made to the subject index for more specific searching.

The subject index is a parasite-orientated index, so that entries are under parasite and host rather than disease. Thus all papers on White Tip Disease of rice will be indexed under the name of the causative nematode, *Aphelenchoides besseyi* (see notes for Subject Index for additional information).

Access to most of the papers abstracted in *Helminthological Abstracts* since 1930 is available within the Institute with the aid of cumulated indices, and, along with extensive library holdings of journals, books and reprints, these represent one of the world's most significant collections of information on parasitology. Readers are encouraged to write to the Institute if they have any problems with the nematological literature or to visit the library themselves to carry out bibliographical research.

On-line facilities are also available for searching all abstracts published since 1973 in *Helminthological Abstracts* and for those published in other CAB journals. From time to time, review articles by authoritative authors are published in *Helminthological Abstracts* and staff of the Institute provide Annotated Bibliographies and other publications in nematology.

CAB International Institute of Parasitology (CIP)

CIP provides an identification service for plant-parasitic and entomophilic nematodes, and helminth parasites of animals and man. The reference collections contain over 65,000 specimens, and an extensive specialist library is maintained. The Tropical Plant Nematology Advisory and Research Unit provides practical advice on plant-parasitic nematodes and their control worldwide, and the Institute also houses the WHO Filarial Reference Collection.

CAB International Institute of Biological Control (CIBC)

CIBC provides information and advice on biological control, undertakes research and implementation of programmes on biological control of major pests and weeds, and participates in integrated pest management programmes in association with other agencies. It has its headquarters in the UK but operates also from stations at Delémont, Switzerland; Bangalore, India; Rawalpindi, Pakistan; Nairobi, Kenya; and Curepe, Trinidad, West Indies.

All four Institutes carry out research, and offer a wide range of training activities from postgraduate studentships to special training courses both in the UK and abroad.

DEVELOPMENT SERVICES

The Development Services provide a focus for CABI consulting activities.

The Development Services Group was established in 1986 to provide a sharper focus for CABI's consulting activities. It draws heavily on the unique scientific expertise and information resources available in the CABI Institutes and Bureaux, and its activities are backed by nearly sixty years of CABI involvement in science and world agriculture.

The Development Services offer practical advice and assistance on many pest-related or environmental problems in agriculture. Specific services include:

— project appraisal
— advice in a range of scientific disciplines
— research supervision
— research evaluation
— project implementation.

These services are offered in situations ranging from short-term individual consultancies to project components and major development projects. The current focus is on:

— integrated pest management programmes
— national crop protection services
— pest/disease identification and control
— crop-orientated pest and disease surveys.

One component of these activities that can be extended to any branch of agriculture or development is the provision of a comprehensive information service, involving expert review and analysis of all relevant literature.

ABBREVIATIONS USED IN *HELMINTHOLOGICAL ABSTRACTS, SERIES B*

Authors Addresses

Acad	Academy
Agric	Agricultural, Agriculture, etc.
Agron	Agronomy
Ass	Association
Biol	Biology, Biological, etc.
Cent	Central
Col	College
Dep	Department
Div	Division
Exp	Experimental, Experiment
Fed	Federal
Gov	Government
Inst	Institute
Lab	Laboratory
Med	Medical, Medicine, etc.
Parasit	Parasitology
Path	Pathology
Reg	Regional
Res	Research
Sch	School
Sci	Scientific
Soc	Society
Sta	Station
Tech	Technical
Trop	Tropical
Univ	University
Vet	Veterinary
Zool	Zoology, Zoological, etc.

Language Symbols

Af	Afrikaans
Al	Albanian
Ar	Arabic
Az	Azerbaijan(i)/Azerbaidzhani/ Azerbaidzhanian
Be	Belorussian
Bg	Bulgarian
Ch	Chinese
Cr	Croat
Cs	Czech
Da	Danish
Nl	Dutch
En	English
Ee	Estonian
Fi	Finnish
Nl	Flemish
Fr	French
De	German
Gr	Greek
He	Hebrew
Hu	Hungarian
Is	Icelandic
In	Indonesian
It	Italian
Ja	Japanese
Ko	Korean
La	Latin
Lv	Latvian
Li	Lithuanian
Ma	Macedonian
My	Malay/Bahasamalaysia
No	Norwegian
Pe	Persian
Pl	Polish
Pt	Portuguese
Ro	Romanian
Ru	Russian
Sr	Serbian
Sh	Serbo-Croat
Sk	Slovak
Sn	Slovene
Es	Spanish
Sv	Swedish
Ta	Tajik/Tadzhik
Tr	Turkish
Uk	Ukrainian

Taxonomic Abbreviations

n.sp.	new species
n.g.	new genus
n.comb.	new combination
syn.	synonym
sp.inq.	species inquirenda
nom.nov.	nomen novum
nom.nud.	nomen nudum
n.subsp.	new subspecies
n.ord.	new order
n.fam.	new family

General Abbreviations

The abbreviations used for the names of common units and chemical substances are in accordance with British Standard 1991: 1967. The following additional abbreviations are also used:

ACTH	adrenocorticotropic hormone
ADP	adenosine diphosphate
a.i.	active ingredient
a.m.	morning
ATP	adenosine triphosphate
CFT	complement fixation test
CHR	cercarienhullenreaktion test
CNS	central nervous system
CSF	cerebro-spinal fluid
cv.	cultivar
DASS	defined antigen substrate spheres
DNA	deoxyribonucleic acid
e.g.	for example
ELIEDA	enzyme-linked immunoelectrodiffusion assay
ELISA	enzyme-linked immunosorbent assay
e.p.g.	eggs per gram
ES	excretory/secretory
F	filial generation
FAO	Food & Agricultural Organization
FAT	fluorescent antibody test
Hb	haemoglobin
HAI	indirect haemagglutination test
Hm/A	Helminthological Abstracts, Series A, Animal & Human Helminthology
Hm/B	Helminthological Abstracts, Series B, Plant Nematology
i.e.	that is
IEP	immunoelectrophoresis
Ig	immunoglobulin
i.p.	intraperitoneal
IU	international unit
i.v.	intravenous
L1-4	larval stage 1-4
LFT	latex flocculation test
mf	microfilaria
MIT	macrophage inhibition test
M(sm.cap.)	molar
P	parental generation
p.m.	afternoon
PCA	passive cutaneous anaphylaxis
PCV	packed cell volume
p.p.m.	parts per million
Pz	Protozoological Abstracts
RAST	radio allergosorbent test
RBC	red blood cell
resp.	respectively
RH	relative humidity
RNA	ribonucleic acid
USDA	United States Department of Agriculture
UV	ultra violet
var.	variety
v/v	volume/volume
WBC	white blood cell
WHO	World Health Organization
wt.	weight
w/v	weight/volume
w/w	weight/weight
yr	year

HELMINTHOLOGICAL ABSTRACTS, SERIES B

VOLUME 55

AUTHOR INDEX

The reference is to the serial number of the citation. No distinction is made between abstract and title-only entries and there are no cross-references to show joint authorship. Thus a paper by "Brown, B.; Jones, A.; Smith, J." would have three separate entries: "Brown, B", "Jones, A.", and "Smith, J.". There is no distinction between subsidiary and senior authors. Apparent inconsistencies may appear in the spelling of authors' names; this is because variations in spelling occur in primary journals. Authors' names in this index are spelt as they appeared in the original paper. If we have knowledge of their identity, alternative versions may also be given.

HELMINTHOLOGICAL ABSTRACTS, SERIES B

VOLUME 55

SUBJECT INDEX

Beginning with Volume 52 the structure of the subject index of this journal changed slightly. This was partly due to the development of the *CAB Thesaurus* and partly to the need to conform to a standard index structure common to all CAB International journals. Most leading terms therefore conform to the preferred terms as listed in the *CAB Thesaurus* [copies are obtainable from CAB International (Central Sales), Farnham House, Farnham Royal, Slough, SL2 3BN, UK].

The reference is to the serial number of the citation. No distinction is made between abstract and title-only entries. The leading key word unit in an entry appears in **bold type**. Aggregation of entries sharing identical keyword units is indicated by indentation. Basically there are four levels of identation: parasite, host, country, subject aspect.

Nematodes, hosts and other organisms are indexed under their scientific names except where too numerous to mention individually, in which case the name of the appropriate larger grouping such as plant parasitic nematodes, marine nematodes, free living nematodes, entomophilic nematodes (or named classes, orders, families etc), Bacteria, Fungi, Insects, Plants, Cereals, Grasses etc. – is used. Certain crop hosts are entered under their common names where appropriate.

Local popular names, as cited in the original paper, may be used where the scientific name cannot be determined with certainty.

In an index of this kind it is not possible to assume that any chosen entry will necessarily give complete coverage of the subject in question. After consulting the chosen entry, it may be necessary to consult index entries for related larger or smaller groupings or for alternative names.

Thus when the subject matter concerns organisms, whether host or parasite, entries concerned with related group, generic or popular names should be consulted.

A similar procedure is necessary with geographical entries, e.g.

East Africa, see also Africa, Kenya, Tanzania, Uganda

New records are identified by "new host record" for the first record of the named parasite in the named host and by "new geographic record" for the first record of the named parasite in the named country or region.

Nematotoxic chemicals are indexed by their common name (where known), their trade name, protocode number, or by their chemical name. Wherever possible trade names are cross-referred to the appropriate common name (as given in Bard, J.H., 1974, *"Nematicide Index". Tech. Comm. No. 46 of the Commonwealth Institute of Helminthology).* No classification of nematicides is attempted.

AUTHOR INDEX

Abd-El-All, A. 803
Abd-Elgawad, M. M. 97
Abd-Elgawad, M. M. M. 416
Abdel-Hadi, M. A. 617
Abe, T. 125
Abrantes, I. M. O. 62
Abrisqueta, J. M. 568
Abu-El-Amayem, M. M. 803
Abu-Elghar, M. R. 775
Abullaeva, O. I. 569
Achan, P. D. 599
Acosta, N. 554, 1017
Acosta, N. Cruz C. 1128
Adamová, B. 415
Adamson, M. L. 367-368, 627-628, 1014
Adler, P. H. 954
Admiraal, W. 173
Adylova, N. A. 200
Agostinelli, A. 401, 944, 994, 1007
Aguillera, M. M. 331, 1043
Ahmad, I. 87, 398, 464, 751, 1079, 1105
Ahmad, M. 75, 555
Ahmad, N. 201
Ahmad, W. 646, 666
Ahmed, A. H. 803
Ahuja, S. 94
Aicha, B. B. 1161
Aihara, T. 293, 629
Akhurst, R. J. 951
Akinin, N. I. 202
Akonde, P. T. 780
Al-Hazmi, A. S. 349
Al-Sayed, A. A. 114
Alam, M. M. 203, 220, 614, 823-825, 1129-1130, 1132, 1171-1172
Alam, S. S. 2
Albertson, D. G. 1187
Albuquerque, C. A. 274, 1196
Ali, M. A. S. 170
Ali, R. 339
Allen, F. L. 1018
Allen, W. R. 963
Aloisi-Sobrinho, J. 696
Alova, O. B. 462
Alphey, T. J. W. 778, 804, 1126
Alston, D. G. 1117
Altendorf, G. 684
Altner, H. 63
Alwan, A. H. 321
Ambrose, W. G., Jr. 359
American Phytopathological Society 904
Amman, G. D. 952
Ammati, M. 1019
Anand, S. C. 677-678
Anderson, J. A. D. 679
Anderson, J. L. 287
Anderson, R. M. 772
Anderson, R. V. 64, 369, 484
Andersson, S. 219
Andrade Melles, C. C. 583
Andreeva, R. V. 983
Andreeva, V. I. 204
Andrés, M. F. 446, 984
Anjum 220
Annells, C. M. 1009
Antone, B. G. 321
Antoniou, M. 1176
Anver, S. 1132
Anwar Masood 1078
Anwar, S. 1102
Aoyagi, M. 536
Apt, W. J. 317, 1157
Araki, M. 738
Arata, T. 473
Arias, M. 446, 793, 984, 1103
Arrington, E. H. 120
Arthington, A. H. 1104
Artokhina, V. G. 723
Artyunov, A. V. 3
Arutyunov, A. V. 205
Asano, T. 826
Asay, R. N. 1038
Ashraf, S. 1130
Aslam, M. 17, 338, 580
Aspöck, H. 34
Aspöck, U. 34
Atkinson, H. J. 155, 246, 463, 1095
Atu, U. G. 95
Aubert, V. 65
Austin, D. J. 279
Averre, C. W. 805
Axtell, R. C. 602
Ayala, A. 460
Azad, M. I. 1102
Baba, M. 35
Babatola, J. O. 126
Bachi, P. R. 827
Badra, T. 499
Baecker, P. 206
Bagyaraj, D. J. 979
Baicheva, O. 66, 294
Baier, J. H. 513
Bailey, P. 953
Baillie, D. L. 254, 544
Bajaj, K. L. 96, 224
Baker, F. A. 296
Baker, G. L. 332, 985
Bala, S. K. 1131
Balandras, C. 432, 699-700, 1067, 1184
Balbaeva, Z. A. 32
Baldwin, J. G. 641, 661, 998, 1003
Baltensperger, D. D. 97, 416, 709, 1052
Bannon, J. H. 926
Bano, M. 1132
Baqri, Q. H. 201
Barabashova, V. N. 537
Barbercheck, M. 4, 1133
Barbosa Ferraz, L. C. C. 572
Barchend, G. 53
Barker, K. R. 133, 182, 805, 1053-1054, 1074, 1125
Barnes, D. K. 440
Barrett, J. 774
Barrow, T. H. 955
Bashir, M. 2
Basile, M. 1156
Batyr, A. K. 570, 588
Baujard, P. 67, 1142
Bayerisches Landwirtschaftliches Jahrbuch 1197
Bazzi, O. 611
Bazzicalupo, P. 901
Beal, R. H. 43
Beaubien, Y. 296
Beaucournu, J. C. 376
Beavers, J. B. 46
Beckenbach, K. A. 254
Bedker, P. J. 749
Behringer, P. 938, 1134-1136, 1177-1178
Bell, A. H. 641, 998, 1003
Bell, S. S. 171
Bello, A. 713, 999, 1103, 1126
Belokopytova, A. M. 40
Benelli, A. 101
Benian, G. M. 1193
Bennett, C. A. 302
Bennett, M. H. 862-863
Benson, D. M. 1054
Bentley, M. D. 680
Benton, C. L. B., Jr. 664
Berg, E. van den 68-69
Berge, J. A. 359
Bergeson, G. B. 806
Berggren, G. T. 309
Bernard, E. C. 1020
Bernhard, R. 500, 1137
Bertrand, P. F. 136
Bhatnagar, C. P. 98
Bhatnagar, S. M. 108
Bhatnagar, V. C. 333
Bhattacharyya, P. 1131
Bhattacharyya, R. K. 207
Bhatti, D. S. 308, 940, 1152
Bhosale, D. J. 422
Bilgrami, A. L. 464, 751, 1079, 1105
Billard, G. 228
Bird, G. W. 57
Bittencourt, C. 630
Blanchette, R. A. 749
Bleve-Zacheo, T. 447, 994
Blome, D. 631
Blumenthal, T. 271-272, 545
Boag, B. 1106
Bochev, N. 501
Bock, T. S. M. de 1037
Bodin, P. 623
Boerma, H. R. 859, 1045
Boffey, S. A. 1180
Bogaert, T. 366
Bogdan, V. A. 118
Boinskiĭ, V. S. 1107
Boldyrev, M. I. 807
Bolla, R. I. 681
Bolten, S. L. 256
Bona, A. de 8
Bone, L. W. 752
Bong, C. F. J. 598
Bonish, P. M. 870
Bonnafe, P. 454
Bora, B. C. 808
Borić, B. 54
Borzykh, G. T. 807
Bos, W. S. 370
Boström, S. 371-372, 632
Bottjer, K. P. 150
Boucher, G. 172, 480, 1108
Boukema, I. W. 99
Bouquet, A. 500, 1137
Bouwman, I. A. 173
Bouwman, L. A. 356
Brandonisio, A. 508, 1146
Brasil Açucareiro 330
Brecht, J. K. 809
Bridge, J. 295, 450, 531, 725, 968, 972, 1058, 1179
Brim, C. A. 682
British Crop Protection Council 556
British Grassland Society 556
Britton, J. A. 120
Brockman, J. S. 556
Brodie, B. B. 434, 789, 838, 1092, 1181
Bromilow, R. H. 504
Brooke, R. C. 1065-1066
Brooks, W. M. 602
Brown, A. G. P. 964
Brown, D. J. F. 151, 350, 609-610, 1080
Brown, D. M. 256
Brown, L. R. 956
Brown, R. H. 810
Brown, S. 465
Brown, S. M. 245, 312, 502
Brucato, M. L. 838
Brust, R. A. 337
Brzeski, M. W. 915, 1021, 1138
Buckingham, G. R. 302
Buisman, J. 811
Bukasov, S. M. 100
Bulletin OEPP 921
Bumbu, I. V. 737
Burdass, W. J. 965
Bureau of Sugar Experiment Stations, Queensland 961
Burnes, T. A. 296
Burney, K. 812
Burr, A. H. 152
Burrows, P. R. 1180
Burshtein, R. S. 208
Burton, J. W. 682
Busey, P. 439
Byard, E. H. 880
CAB International 913
Cadet, P. 127, 209, 448, 519, 813, 892
Calzolari, A. 611
Camino, N. B. 1004
Campbell, W. V. 682
Campos, V. P. 583
Cane, J. 272
Capecchi, M. R. 1189
Caperton, C. M. 351
Carbonell, E. 373-374
Carceles, A. 297
Cardenas, M. 1075
Carderán, J. O. 849, 851
Cardin, M. C. 421, 426, 1025, 1081
Carles, L. 5
Carlton, C. C. 120
Caroppo, S. 101
Carpenter, A. J. 503
Carr, S. 903
Carr, S. H. 546
Carris, L. M. 966
Carter, C. C. 121
Cartia, G. 1139
Carvalho, V. N. R. 708
Castel, J. 361, 779
Castillo C., P. 481
Caswell, E. P. 498, 783
Caubel, G. 417-418, 466, 1022-1023
Caveness, F. E. 499, 780
Cerkauskas, R. F. 621
Chadha, K. L. 128
Chadha, M. L. 94
Chambers, A. Y. 814, 839
Chang, H. 298
Charpentier, F. 417, 1022
Chaturvedi, Y. 6
Chaubet, B. 466
Chebotar', L. N. 117
Chen, J. T. 7
Chen, L. G. 334
Chen, T. A. 90
Chen, Z. Y. 784
Chikaoka, I. 815
Chinappen, M. 385, 447
Chitwood, D. J. 753
Chizhov, V. N. 591, 633
Choleva, B. 299
Choudhury, B. C. 102
Christie, I. D. 134
Chukantseva, N. K. 210
Chumakova, I. V. 40
Ciancio, A. 352
Cirino, A. 708
Clamot, G. 419, 1024
Clark, C. A. 695
Clarke, A. J. 153, 1082
Clayden, I. J. 881
Clayton, C. N. 120
Cliff, G. M. 70
Clinton, W. 827
Cochec, F. le 418
Coffee Board Research Department, India 277
Cohn, E. 147, 164
Coiro, M. I. 151
Coleman, D. C. 484
Commonwealth Agricultural Bureaux 913
Commonwealth Institute of Entomology 913
Commonwealth Institute of Parasitology 913
Commonwealth Mycological Institute 913
Conrick, D. L. 1104
Cooke, D. A. 504
Coolen, W. 58

Coomans, A. 58, 362, 373-374, 619, 634, 651, 882
Cooper, K. M. 613
Cordeiro, N. da S. 375
Cotroneo, A. 974
Cottrell, D. A. 542
Coull, B. C. 174
Coulson, A. R. 755
Cowan, A. E. 255, 475
Cowland, J. A. 576
Cox, G. N. 1191
Crites, J. L. 676
Crop Protection Division, Nematology Department 905
Croshier, R. 1140
Csinos, A. S. 816
Cuadra, R. 168
Cuarezma-Terán, J. A. 493, 612
Culbreath, A. K. 211
Culotti, J. G. 260
Curi, S. M. 8, 320
Curran, J. 883
Currie, D. C. 954
Cutillas, C. 335
Dabney, S. M. 309
Daiber, K. C. 420
Dale, A. 1126
Dale, M. F. B. 103
D'Alessio, M. 901
Dalmasso, A. 421, 426, 1025, 1081
Dankers, W. H. 186
D'Arc de Lima, R. 583
Darekar, K. S. 104, 216, 422, 927, 1036, 1073, 1150-1151, 1159
Das, P. K. 201
Das, S. N. 314
Dasgupta, D. R. 711
Daskalova, I. 294
Datta, S. 1026
Daunay, M. C. 421, 1025
D'Auria, J. M. 1065
Dave, G. S. 324
Davide, R. G. 197, 529
Davies, J. C. 333
Davis, R. M. 212
Dayal, R. 1118
De Meyer, P. 58
De Pelsmaeker, M. 58, 619
De Souza Filho, G. F. 313
De Ward, C. P. 91
Decker, H. 53, 301
Decraemer, W. 986
Deinzer, M. L. 836
Delfino, J. J. 507
Dement'eva, S. P. 571
Denison, K. 272, 545
Department of Agriculture for Northern Ireland 595
DePass, L. R. 1141
Dern, R. 9
D'Errico, F. P. 487
Desai, B. N. 195
Desai, M. V. 1070
Deseö, K. V. 336
Detling, J. K. 1060
Deunff, J. 376
Devlin, R. H. 540
Dharmadhikari, P. R. 599
Dharmasena, W. A. M. 1029
Dhindsa, K. S. 522
Di Vito, M. 10, 327, 410, 461, 467, 1098
Dibb, N. J. 256, 898
Dickson, D. W. 300, 688
Dierberg, F. E. 505
Divakar, B. J. 600
Dolph, R. E., Jr. 952
Doucet, M. E. 635, 987
Doucet, M. M. A. de 636
Doud, S. L. 120
Doussinault, G. 458, 1071
Dowe, A. 301
Dowler, C. C. 795
Dozier, W. A. 120
Dropkin, V. H. 177, 884, 1030
Duarte, O. 941
Duce, A. 494
Duggal, C. L. 377
Düker, I. 742
Dukes, P. D. 1028
Duncan, L. W. 817, 1142
Dunlap, D. 392
Dunn, R. A. 97, 315, 416, 709, 1050, 1052, 1164
Dunphy, G. B. 36, 52, 601, 967
Dusenbery, D. B. 156
Dzyumenko, Z. M. 1109
East Malling Research Station, United Kingdom 275-276
East, R. 488
Ebsary, B. A. 378, 637
Edgar, L. G. 257, 754
Edgar, R. S. 1091
Edward, J. C. 638, 668
Egilmez, N. K. 154
Egunjobi, O. A. 213, 780, 918, 1143
Ehrenpfordt, V. 175
Ekanayake, H. M. R. K. 10, 148, 461, 467
El-Shoura, M. Y. 803
El Tayeb, Y. M. 976
El-Zik, K. M. 506
Elia, F. 508, 1146
Eliava, I. Ya. 181, 559-560
Elliott, A. P. 1027
Ellis, H. M. 1188
Ellis, R. E. 755
Eplee, R. E. 513
Erbaceva, E. A. 178
Erdélyi, G. 760
Erofeev, S. G. 523
Esbenshade, P. R. 756
Eskin, R. A. 357
Esser, R. P. 11, 231, 302, 922, 988, 1055
Estey, R. H. 812
Etzenberg, K. 742
Evans, A. A. F. 471, 1083
Evans, K. 449, 1056-1057
Ewertson, G. 105
Fadeev, Yu. N. 818
Fadeeva, N. P. 379
Fademi, O. A. 683
Faghihi, J. 639, 724, 757
Fam Tkhan' Bin' 737
Farkas, K. 12
Fatemy, F. 449, 1056-1057
Fatima, N. 79, 584
Fawar, A. B. 927
Ferrari, V. 442
Ferraz, E. D. de A. 106
Ferraz, L. C. C. B. 572
Ferraz, S. 995, 1100-1101
Ferris, H. 135
Ferris, J. M. 71, 639, 724, 757, 806
Ferris, V. R. 71, 639, 724, 757
Fery, R. L. 1028
Fichtner, E. 176, 445, 684, 1144
Fichtner, W. 176
Filenko, V. L. 242
Findlay, S. E. G. 358
Fischbeck, G. 1167-1168
Fisher, J. M. 142, 747
Fisher, S. W. 871
Fitzsimmons, K. 681
Fleeger, J. W. 61
Flegg, J. 285
Flegg, J. J. M. 280
Fleming, C. C. 890
Florida Department of Agriculture and Consumer Services 923
Foran, J. A. 507
Forest Research Institute, New Zealand 552
Forrest, J. M. S. 758, 1083
Fortuner, R. 72, 906
Fotedar, D. N. 73
Fouse, D. C. 764
Fox, P. C. 155, 246
Francez, A. J. 781
Francis, G. R. 273
Francl, L. J. 177, 782, 885
Freckman, D. W. 783, 1110
Frederick, J. J. 527
Freire, F. C. O. 450, 725, 968, 1058
Frisbie, R. E. 506
Fritsche, R. 423
Fritzsche, R. 53, 945
Fujita, Y. 891
Fukudome, N. 685, 690-691
Fukushige, H. 640
Fürst, L. 1135-1136
Fusco, R. A. 607
Futai, K. 640, 887
Gabr, M. A. 617
Gadea, E. 13
Gagarin, V. G. 178
Gallo, P. 1140
Galloway, T. D. 337
Gambrell, C. E. 120
Gapasin, R. M. 424
Garcia M., R. 14, 26
Garcia-Martinez, R. 26
Garg, P. K. 233
Garrone, R. 266
Geden, C. J. 602
Gee, J. M. 359
Georgievska, M. 482
Georgis, R. 37
Geraert, E. 399
German, E. V. 214
Germani, G. 641
Germuska, P. J. 507
Gershey, J. S. 309
Ghaffar, A. 585, 943, 1158
Ghazala, P. 79
Giblin, R. M. 603, 1111
Gillett, J. M. 973
Given, C. J. 505
Gladkaya, R. M. 819
Glawe, D. A. 966
Glazer, I. 716
Gleissl, W. 924
Glotova, E. V. 820
Glotova, L. E. 820
Gnanapragasam, N. C. 451, 548, 1029
Goddard, J. M. 1189
Godet, J. 266
Gokte, N. 425
Golden, A. M. 139, 816
Goldstein, P. 538, 895-896, 1190
Gomes, R. S. 573
Gómez, J. 568
González Castro, J. 335
Goode, M. 156
Goodman, C. S. 258
Gordon, S. C. 804
Goswami, B. K. 1173
Gould, W. D. 484
Gourbault, N. 189, 360, 642-644, 986
Gourley, L. M. 493
Govindan, K. 195
Gowda, D. N. 1145
Grabert, D. 483
Graham, R. D. 747
Grandison, G. S. 613
Gray, L. E. 966
Greathead, A. S. 864
Grech, N. M. 748
Greco, N. 327, 410, 508, 1086, 1098-1099, 1146, 1156
Green, J. 238
Green, R. E. 1157
Greenwald, I. 539, 897
Griffin, G. D. 157-158, 287, 1059
Grill, D. 15
Grujičić, G. 54
Gruzdeva, L. I. 243
Grzybkowska, M. 38
Gu, Q. F. 784
Gubaidulin, N. A. 649
Guevara, D. C. 335
Guillemette, M. 361
Gulyaev, A. G. 202
Gulyamova, D. B. 604
Gundy, S. D. van 129
Güntzel, O. 933
Gupta, A. K. 989
Gupta, D. C. 308
Gupta, N. K. 989
Gupta, S. P. 980
Gushchin, F. L. 247
Gus'kova, L. A. 107, 818
Guy, P. 417, 1022
György, K. 56
Hagan, A. 821
Hagiya, S. 822
Hague, N. G. M. 456, 712
Haider, S. R. 925
Halbrendt, J. M. 884, 1030
Halseth, D. 434
Ham, P. J. 1179
Hamid, G. A. 129
Hamid, S. 338
Handa, D. K. 98, 108
Hansen, J. L. 832
Haq, I. 17, 580
Haq, S. 1147
Harder, W. 496, 799
Hariharan, P. V. 771
Hariharan, V. 625
Harkcom, K. J. 302, 1055
Harosi, F. I. 152
Harper, G. 528
Harris, L. J. 269
Hart, S. V. 682
Hartman, K. M. 121
Hartwig, E. E. 686
Hasan, A. 353, 452, 969
Hasan, N. 215, 687, 1031-1032
Haseeb, A. 574-575, 614, 726, 823-825, 1062
Hashmi, S. 185, 585, 1158
Haskell, P. T. 561
Hatakeda, K. 826
Hauri, H. P. 971
Hawke, M. F. 488
Hawksworth, D. L. 669
Hayashi, Y. 1185
Hayashii, E. 828
Hayes, R. M. 839
Heatherbell, C. J. 836
Hedgecock, E. M. 259-260
Heijbroek, W. 777
Heinicke, D. 221
Heip, C. 159, 199, 286, 362-363, 365
Hendy, H. 426
Henson, G. 827
Herman, P. M. J. 159, 362
Herman, R. K. 261, 902
Hernández, R. 1033
Hernansáez, A. 568
Herrera, A. F. 320
Hershman, D. E. 827
Hess, R. 769, 990
Hess, R. T. 55
Heungens, A. 1148
Heyns, J. 4, 74, 383, 634, 991
Hillocks, R. J. 615
Hirao, F. 1185
Hirata, A. 407
Hirooka, K. 891
Hirschmann, H. 70
Hirsh, D. 257, 546, 899, 903, 1191
Hodge, C. 798
Hodge, C. H. 236
Hodgkin, J. 262-263
Hofman, K. 99
Hogan, E. 1096
Hokaguchi, N. 690-691
Holland, P. T. 528
Holliday, J. M. 717
Hom, A. 796
Hominick, W. M. 44, 1083
Homma, Y. 509
Honda, B. M. 540, 543
Honda, S. 763
Hooper, D. J. 576
Horner, E. S. 416
Horton, C. A. 902
Horvitz, H. R. 1188, 1195
Hosono, R. 264-265
Hotchkin, P. G. 354
Huang, C. S. 630
Huang, S. P. 583, 1034
Huber, D. J. 809

Huettel, R. N. 688, 759, 886, 1046
Huff, D. E. 577
Husain, A. 575
Husain, S. I. 1035
Hussain, S. I. 946
Hussey, R. S. 162, 622, 859, 1045, 1093
Hyman, B. C. 1194
Ibrahim, I. K. A. 179, 689
Ichinohe, M. 393
ICRISAT 549
Iftikharuddin, M. 453
IITA 550
Ikusima, Y. 826
Inagaki, H. 303
India, Central Institute of Medicinal and Aromatic Plants 551
India, Central Plantation Crops Research Institute 907
India, Coffee Board Research Department 277
Ingham, R. E. 484, 1060
Inoue, A. 473
Inoue, T. 698, 828
Inouye, D. W. 728
Inserra, R. N. 147, 287, 673, 727, 746, 1059
Institut Zoologii Akademii Nauk Turkmenskoĭ SSR 910
International Potato Center, Peru 283
Ĭordanov, M. 109
Irshad, M. 339
Isensee, A. R. 1149
Ishibashi, N. 511, 534, 536, 763, 957-958, 1084
Ishiguro, T. 1185
Ishii, R. 822
Islamov, E. M. 227
Ito, S. 826
Ivanova, B. P. 118, 427, 578
Ivanova, T. 88
Ivey, H. 1154
Ivezić, M. 911, 926, 1120
Iwahori, H. 887
Jackson, T. A. 955
Jadhav, D. R. 333
Jaenike, J. 340
Jaffee, B. A. 616, 829
Jagdale, G. B. 216, 927, 1036, 1150-1151, 1159
Jahier, J. 706
Jain, K. K. 108
Jain, R. K. 215, 687, 1031-1032, 1152
Jairajpuri, M. S. 75, 87, 398, 464, 645-646, 666, 751, 1079, 1105
Jansma, P. L. 1093
Jansson, H. B. 180, 797
Jastrabsky, M. 454
Jatala, P. 970
Jefferson, R. 1191
Jemenez Millán, F. 1127
Jensen, P. 380, 992
Jenser, G. 56, 760
Jesyaseelan, M. J. P. 170
Jeyaprakash, A. 180
Jimenez, M. 1140
Jiménez M., F. 481
Jiménez, M. O. 16
Johnson, A. W. 816, 830-831, 1153
Johnson, J. T. 236
Johnson, T. E. 468
Johnston, H. W. 18
Jones, E. D. 434
Jones, G. M. 970
Jones, R. K. 510
Jones, R. L. 832
Jones, T. L. 805
Jong, J. H. de 1037
Jordaan, R. 74
Jordanov, M. 109
Jouvenaz, D. P. 42
Kábana, R. R. 970, 1154
Kadotani, N. 690-691
Kaiser, H. 381
Kakalenko, S. S. 217
Kale, P. N. 435
Kallu, M. A. 1102
Kaloshian, I. 1086, 1099
Kamigama, K. 685
Kämpfe, L. 1085
Kaneko, S. 1061
Kankina, V. K. 833
Kansal, K. C. 6
Kanyagia, S. T. 218
Kaplan, D. T. 130, 304, 579, 688, 692
Kappelman, A. J. 1049
Karapetyan, D. A. 928
Kari, C. K. 261, 902
Karn, J. 256, 898, 1192
Kaul, V. 73
Kaya, H. K. 39, 341, 607, 956
Kegasawa, K. 509
Kegler, H. 53
Kemphues, K. J. 899
Kennedy, G. L., Jr. 834
Kenyon, C. 900
Kenyon, C. J. 541
Kern, J. C. 171
Kerry, B. R. 219, 835
Kester, D. E. 1038
Keyserling, M. L. 1020
Khan, A. 1155
Khan, A. A. 30, 220, 929
Khan, A. H. 785
Khan, A. M. 131, 305, 574, 726, 824, 1062
Khan, B. A. 17, 580
Khan, F. A. 160, 761, 930, 1039
Khan, H. A. 234, 993
Khan, M. I. 453
Khan, M. L. 382
Khan, M. N. 353
Khan, M. R. 30
Khan, M. W. 131-132, 305, 925, 929, 931, 947, 1112
Khan, R. M. 131-132, 305, 931, 1112
Khan, S. A. 234
Kheir, A. M. 114
Khera, S. 1113
Khokhryakova, T. M. 693
Kholod, N. A. 110, 856
Khosla, M. 540
Kiigemagi, U. 836
Kiknadze, G. A. 181
Kim, Y. H. 1040
Kimpinski, J. 18, 932
King, P. S. 237, 521
Kirchengast, M. 381
Kirtland, S. 272
Kitsno, L. V. 840
Kiyohara, T. 762
Klass, M. R. 468
Klerk, C. A. de 843
Kleshchinova, E. A. 469
Klimakova, E. T. 111
Klinger, J. 605, 933, 971, 1114
Klügling, R. 175
Klumpar, J. 1063
K"nev, I. 299
Knowles, J. W. 120
Knowles, K. 296
Koblitz, H. 720
Koenning, S. R. 133, 182, 677, 786
Kolte, S. J. 288, 562
Kondo, E. 511, 534, 647, 763, 957-958, 1084
Kondo, K. 728
Konger, G. 319
Konorbis, S. 934
Köppen, D. 1144
Kornobis, S. 935
Kornprobst, J. M. 858
Körschens, M. 1144
Korzhentsevskaya, N. V. 819
Kostadinov, A. 306
Kotcon, J. B. 1064
Kotko, I. K. 702
Koul, R. 377
Koura, F. H. 694, 729-730, 837
Kovalevskiĭ, V. V. 523
Kozhokaru, G. I. 570, 731
Kozlov, M. P. 40
Kozlovskiĭ, N. P. 581
Krall' E. 88
Krall, E. L. 648
Kramer, J. M. 1191
Kravtsov, A. A. 1200
Kreil, V. 1085
Kreil, W. 140
Kremer, D. R. 356
Kries, A. 112, 221
Krishnamurthy, K. 170
Krishnappa, K. 119
Krstić, O. 54
Kruchina, S. N. 591
Kruger, J. C. de W. 383
Kuchler, F. 1199
Kukashev, D. Sh. 649
Kulinich, O. A. 650
Kumar, A. C. 384
Kumar, S. 512
Kuno, S. 264-265
Kunz, P. 933, 971, 1114
Kurppa, S. 470, 582
Kushwaha, J. S. 222
Kuthubutheen, A. J. 183
Ladygina, L. M. 117-118
Lamberti, F. 385, 401, 447, 944, 974, 994, 1007, 1098, 1156
Lambshead, P. J. D. 981
LaMondia, J. A. 787-789, 838, 1181
Lamprecht, H. 485
Lange, W. 1037
Launay, H. 376
Lawn, D. A. 732, 1182
Lawrence, G. W. 695
Le Coche, F. 1023
Leadbeater, B. S. C. 743
Lecordier, C. 360
Lee, C. C. 1157
Lee, J. 809
Lee, K. E. 332, 343
Lehman, P. S. 19, 936
Lekhnovich, V. S. 223
Lentz, G. L. 839
Leva, A. R. 101
Lewis, F. B. 607
Lewis, S. A. 179, 689
Li, H. K. 41
Lieutier, F. 454
Lima, M. B. 413
Lima, R. D'A. de 583, 995, 1100-1101
Linares, B. 86
Lindegren, J. E. 347, 764
Linit, M. J. 681
Linnik, L. I. 840
Linskens, H. F. 144
Lisetskaya, L. F. 790, 841
Lišková, M. 318, 478-479
Litton, C. C. 888-889
Liu, J. J. 253
Liu, W. Z. 428
Liu, Y. 428
Locher, S. E. 771
Lockwood, D. W. 120
Lodhi, P. S. 980
Logrieco, A. 352
Longworth, J. F. 343
Loof, P. A. A. 77, 370, 386, 651
Lopez, A. S. 106
Lopez C., R. 76, 78, 535, 652
Lopez Chaves, R. 652
Lopez, R. 78
López, W. 1033
Löptein, H. 20
Lordello, A. I. L. 696
Lordello, R. R. A. 696
Lorenzen, S. 996
Loria, R. 434, 513, 721, 1064
Lössbroek, T. G. 342
Loubser, J. T. 842-843
Lovatt, C. J. 129
Lownsbery, B. F. 21
Lownsbery, J. W. 21
Lozano, R. 753
Luc, M. 65, 997-998, 1041
Lucas, L. T. 844
Luedders, V. D. 113
Lusby, W. R. 753
Lyrene, P. M. 436
Mabbett, K. 1087
McArdle, A. J. 430
McClure, M. A. 883
McColl, H. P. 514
McCouch, S. R. 845
McCoy, C. W. 225
McCulloch, J. S. 404
McElroy, F. D. 226
McGawley, E. C. 309
McGhee, J. D. 542, 754
MacGowan, J. B. 1183
McGregor, M. D. 952
MacGuidwin, A. E. 57
McIntosh, J. R. 255
McLeod, R. W. 736
McRae, N. 1186
McSorley, R. 186, 431, 919, 1044
Madzhidov, A. R. 653, 937
Magnusson, C. 307
Mahajan, R. 96, 224, 999
Mahmood, I. 697, 733-734, 785
Mai, W. F. 845
Makarevskaya, Z. S. 248
Malec, K. 1042
Mali, M. S. 522
Malone, K. M. B. 1196
Mamiya, Y. 429, 680, 735
Mancini, G. 974
Mangat, B. P. S. 308
Mankau, R. 184, 1110
Manuel, L. R., Jr. 1018
Manuelpillai, M. E. K. 451
Manzoor Hussain 115
Maqbool, M. A. 22, 79-80, 185, 584-585, 654, 1000, 1158
Markevich, V. F. 243
Marks, G. C. 134
Marks, R. J. 881, 890
Marshall, J. G. 309
Martin, L. H. 655
Martin, T. M. 513
Martínez Sierra, V. 28
Martinović, M. 54
Martyn, R. D. 351
Masalles, D. 387
Mashaall, S. F. 617
Massese, C. S. la 500
Mathew, J. 977
Mathias, P. L. 717, 877
Mathur, B. N. 122
Matsumoto, S. 433
Matsuoka, S. 1043
Matveeva, M. A. 791
Mawji, N. R. 269
May, D. 1072
Medhane, N. S. 1159
Medvedev, F. S. 187
Meek, C. L. 49, 608
Meheus, L. 1088
Mehiar, F. F. 617
Mekhtieva, N. A. 227
Melakeberhan, H. 1065-1066
Melles, C. C. A. 583
Mel'nik, M. V. 737
Mende, N. von 938
Mendis, A. H. W. 471
Mercer, C. F. 939
Merny, G. 228
Mészner, K. 12
Metlitskaya, K. V. 820
Metlitskiĭ, O. Z. 202, 229, 818
Meyer, P. de 58
Midsukami, M. 265
Milkus, B. N. 833
Miller, D. M. 898, 1192
Miller, L. A. 336
Miller, P. A. 682
Miller, R. W. 136
Milner, R. 953
Minagawa, N. 388-389, 656-658, 912, 1001
Minton, N. A. 310, 565, 795
Mirro, E. J. 1141
Mishra, A. 98, 108

Missonnier, J. 1160
Mitchell, G. B. 42
Mix, J. 43
Mizukubo, T. 389, 657-658
Mkrtchyan, R. S. 23
Moens, M. 1161
Moerman, D. G. 256, 1193
Mohamed, A. M. 775
Mohandas, C. 81
Mohyuddin, A. I. 339
Moll, A. 438
Moltmann, E. 1115
Molyneux, A. S. 161
Montagna, P. A. 792
Montasser, S. A. 114
Montecinos, G. 1140
Moreau, J. P. 486
Moreno, I. 746
Morera, N. 535
Moretti, F. 974
Morgan-Jones, G. 188, 211
Mori, T. 698
Mornant, J. R. 189
Morohoshi, F. 765
Morokhovets, V. N. 82
Morris, O. N. 959
Morris, W. J. 269
Morton, H. V. 846
Motsinger, R. E. 136, 310
Moura, R. M. 719
Moyer, D. D. 434, 513
Mráček, Z. 960
Mueller, J. D. 847-848
Mugniéry, D. 432, 699-700, 1067, 1184
Muhammad Ilyas 115
Muid, S. 183
Mukherjee, K. S. 1131
Mukhina, T. I. 24, 82
Mukhtar, J. 1171
Müller, J. 112, 221
Müller, M. 945
Munakata, N. 765
Munir, A. 17, 580
Munzert, M. 1047
Murdock, L. L. 71, 757
Muthukrishnan, T. S. 390
Myers, R. F. 586, 1002, 1068
Nair, M. K. 281
Nakamura, S. 738
Nakasono, K. 476, 738, 912
Nanjan, K. 512
Narbaev, Z. N. 587
Naser, S. A. 837
Navas, A. 793, 984, 1103
Nedelchev, S. 299
Negrón, J. 1128
Nelli, E. J. 849-850
Nelsen, C. E. 341
Nelson, D. W. 540, 543
Nelson, J. W. 852
Nematologia Brasileira 909
Nematological Society of Southern Africa 284
Nesterov, P. I. 588, 659
Netherlands, Laboratorium voor Bloembollenonderzoek 282
Netscher, C. 230
New Zealand, Forest Research Institute 552
Niblack, T. L. 1045
Nicholas, W. L. 391
Nicholls, P. H. 504
Nielsen, M. T. 888-889
Nieuwhof, M. 701
Nikitin, V. S. 702
Nikitina, A. I. 515
Nilsson, G. 516
Nishiyama, Y. 739-740
Noe, J. P. 794
Noel, G. R. 732, 1182
Noldt, U. 249
Noling, J. W. 135
Nordbring-Hertz, B. 489, 496, 799
Nordmeyer, D. 502
Northern Ireland, Department of Agriculture 1198
Norton, D. C. 311, 392, 441
Novaretti, W. R. T. 573, 849-851
Nuss, B. 766
Nuttall, M. J. 344
Nyczepir, A. P. 136, 618
Oard, M. 311
Oashi, K. 455
O'Bannon, J. H. 231, 922
Ocran, M. H. 348
Odani, K. 739-740
Odindo, M. O. 44
Ogawa, Y. 393
Ogbuji, R. O. 95
Ogle, W. L. 1028
O'Hair, S. K. 1044
Ohashi, Y. 116
Ohba, K. 767, 891, 1185
Ohba, T. 433, 738
Ohbayashi, N. 232, 815
Ohnesorge, B. 1115
Ohshima, Y. 393, 407, 912
Okai, Y. 1089-1090
Okamoto, K. 394, 822
Okoli, O. O. 95
Okopnyĭ, N. S. 117, 137, 251, 741, 768
Olaitan, J. O. 1143
Olefir, V. V. 100
Olímpio Carderán, J. 849, 851
Olowe, T. 395
Olsen, L. G. 852
Olsson, E. 660, 703
Olthof, T. H. A. 589, 704
Omar, R. A. 617
Omiyi, P. I. 1039
Onyenobi, F. I. 25
Oramas, D. 238
Orchard, J. E. 106
Orion, D. 716
Orton Williams, K. J. 83
Ortuño, A. 568
Osafune, M. 473
Osborne, L. S. 579
Osman, G. Y. 775
Osman, H. A. 729-730
Osseni, B. 1116
Osteen, C. 1199
Othman, A. A. 661, 1003
Otto, G. 742
Ou, S. H. 289
Ouazana, R. 266
Overman, A. J. 517
Pace, M. E. 309
Page, S. L. J. 972
Page, S. L. M. 295
Pais, C. S. 62
Palmer, M. A. 357
Pan, C. S. 396
Pandey, R. 575
Pandey, S. Y. 233
Pantone, D. J. 312, 1069
Panwar, M. S. 857, 1163
Paoletti, M. G. 606
Paris, L. P. 874
Parker, L. W. 518
Parker, M. B. 795
Parmelee, R. W. 1117
Parrado, J. L. 186, 431, 919, 1044
Parrott, D. M. 717
Paruthi, I. J. 940
Pastor de Ward, C. T. 1015
Patel, D. B. 1070
Patel, D. J. 1070
Patil, B. D. 1031
Patil, N. G. 104
Pavalko, F. M. 1094, 1096
Pawar, A. B. 216, 1036, 1150-1151, 1159
Pawar, A. D. 600
Pawar, C. S. 333
Pawar, S. N. 233
Pearson, J. F. 955
Pelletier, R. 228
Pelsmaeker, M. de 58, 619
Pemberton, H. B. 705
Pemberton, I. J. 705
Peña S., R. 481
Pena Santiago, R. 1127
Pennacchio, F. 487
Percival, N. S. 488
Perennec, P. 432, 1067
Peretti, E. 802
Perkins, E. 472
Perkins, L. A. 260
Perry, R. N. 153, 671, 774, 1082, 1095
Person-Dedryver, F. 458, 1071, 706
Persoone, G. 366
Persson, Y. 489
Peru, International Potato Center 283, 707
Petersen, J. J. 345, 608
Peterson, D. 853
Pett, B. 720
Pfannkuche, O. 624
Phillips, M. S. 103
Phipps, P. M. 854-855, 1027
Phukan, P. N. 808
Pin, L. H. 313
Pinochet, J. 941
Pizano, M. A. 331
Plaisted, R. L. 434
Plant Protection, Tokyo 982
Platonova, T. A. 397
Platt, H. M. 84-85
Platzer, E. G. 1111, 1186, 1194
Pochard, E. 421, 1025
Poinar, G. O., Jr. 37, 55, 86, 347, 606, 662-665, 769, 796-797, 985, 990, 1004
Pokhodenko, A. P. 229
Politz, J. C. 1091
Politz, S. M. 1091
Polozhenets, V. M. 355
Polyakova, L. T. 942
Ponin, I. Ya. 118
Ponte, J. J. da 708
Popova, M. B. 856
Potter, J. W. 745
Powers, T. O. 1194
Pramer, D. 190
Prasad, D. 222, 1162
Prasad, G. 1118
Prasad, J. S. 857, 1163
Prasad, J. S. R. 590
Prates, H. S. 8
Pratt, S. E. 902
Premachandran, D. 190, 1093
Price, J. F. 517
Priess, J. R. 477
Prillinger, L. 63
Prince Jeyaseelan, M. J. 170
Prine, G. M. 1164
Prior, C. 913
Proctor, D. L. C. 490
Prot, J. C. 858
Pusey, P. L. 618
Putsa, N. M. 138, 250, 591
Pye, A. E. 346
Pye, A. L. 346
Qamar, F. 234
Qasim, M. 79, 943
Queensland, Bureau of Sugar Experiment Stations 961
Queguiner, J. 432, 1067
Quénéhervé, P. 519, 892
Quesenberry, K. H. 97, 416, 709, 1050, 1052
Qureshi, S. H. 2
Rabas, D. L. 440
Rabbinge, R. 777
Radewald, J. D. 1186
Radwan, M. A. 803
Radzhabova, A. A. 770
Rágala, P. 192
Rahman, M. F. 87, 398
Rahmani, S. A. 666
Raijadhav, S. B. 435
Rainiss, I. 710
Raja, A. 711
Rajendra Singh 980
Rajkumar, P. 119
Rajput, T. 1155
Raman, S. 314
Ramana, K. V. 81
Ramaseshiah, G. 599
Ramsdell, D. C. 973
Rand, J. B. 267
Randhawa, N. 1113
Rao, V. N. M. 207
Rao, Y. S. 590, 857, 1163
Raski, D. J. 81, 399, 667
Raspudić, E. 1120
Rausch, H. 34
Rawsthorne, D. 456, 712, 1092, 1181
Reardon, R. C. 607
Reay, F. 592
Rebois, R. V. 139, 886, 1046
Reddigari, S. R. 162, 1093
Reddy, D. D. R. 979
Reddy, H. R. V. 625
Reddy, K. C. 1164
Reddy, P. P. 437
Reese, P. F., Jr. 859
Reimherr, P. 593
Renard, M. 418, 1023
Renaud-Mornant, J. 189
Report, East Malling Research Station, UK 275-276
Reuss, H. 140
Reversat, G. 1041
Reynolds, J. S. 186
Rhoades, H. L. 235, 457, 520
Rice, S. L. 743
Rich, J. R. 14, 26, 236, 315, 798, 860
Riedal, R. M. 861
Riemann, F. 1005
Riherd, C. C. 1055
Rij, R. E. 764
Ritchie, D. F. 120, 862-863
Ritter, M. 920
Rivas, X. 169, 268, 316
Rivoal, R. 458, 1071
Roan, J. 948
Robbins, R. T. 400
Robert, Y. 486
Roberts, P. A. 864, 1019, 1072
Roberts, T. M. 1094, 1096
Robertson, W. K. 798
Robertson, W. M. 758
Robinson, M. P. 1095
Roca, F. 385, 401, 944, 974, 994, 1006-1007
Rodríguez-Kábana, R. 188, 211, 237, 521, 566
Rodríguez-Marcano, A. 1165
Rogalski, T. M. 544
Roget, D. K. 865
Rohrbach, K. G. 317
Rojancovschi, E. 620
Rom, R. C. 120
Román, J. 169, 238, 268, 316
Roman, J. 1165
Romeijn, K. 173
Romero, M. D. 494
Romeyn, K. 356
Roncadori, R. W. 622
Rose, A. M. 254, 269
Roselli, G. 101
Rosenzweig, W. D. 190
Ross, D. J. 239
Ross, J. P. 682
Ross, S. R. 764
Rothamsted Experimental Station 913
Rothstein, M. 154
Rourke, R. V. 832
Rovira, A. D. 835, 865-866
Roy, A. K. 867
Rüdel, M. 975
Russell, R. L. 267
Rutherford, T. A. 52
Ryder-White, J. 518
Ryumshina, G. I. 1109
Saad, A. T. 1086, 1099
Saadabi, A. M. 976, 1121
Sable, A. N. 1073
Sabová, M. 318, 479, 1124
Sabova, M. 478
Sachse, B. 175, 483
Sacristán, J. C. 713
Sadykin, A. V. 251
Saeed, M. 234, 993
Safir, G. R. 57
Sagitov, A. O. 214
Saito, N. 826
Salawu, E. O. 714
Saleh, H. M. 252

Salem, F. M. 775
Salmerón Parra, T. 28
Šály, A. 191-192, 1119
Sambaugh, T. S. 861
Samoiloff, M. R. 366
Šamota, D. 926, 1120
Samuel, M. 977
Sánchez, A. 713
Sánchez de León, A. 240
Sandee, A. J. J. 199
Sandner, E. 938
Sandner, H. 45
Sangwan, N. K. 522
Sano, Z. 738, 893
Santamour, F. S., Jr. 430
Santiago, R. P. 1008
Santos, M. S. N. A. 62
Sasaki, S. 739-740
Sasser, J. N. 121
Sauer, M. R. 1009
Saverwyns, A. 58
Savino, V. 461, 974
Sawazaki, E. 696
Saxena, S. K. 697, 726, 734, 785, 1078, 1147
Sayre, R. M. 59, 1166
Schaanning, M. 359
Scheidt, M. 1047
Schierenberg, E. 270
Schilling, K. 491
Schliephake, E. 27
Schmidt, H. B. 945
Schmitt, D. P. 133, 182
Schmitt, R. V. 879
Schönhammer, A. 1167-1168
Schönwälder, J. 742
Schrage, M. 631
Schumann, U. 720
Schwank, P. 1122
Scotto la Massese, C. 500, 914, 1137
Sebastiano, M. 901
Segawa, M. 728
Seki, T. 728
Seljahudin, A. 56
Sepiah Muid 183
Seshadri, A. R. 149, 878
Setty, K. G. H. 1145
Sha, C. Y. 163
Shaffer, R. L. 829
Shagalina, L. 88
Shagalina, L. M. 648
Shahina, F. 22, 80, 654, 1000
Shane, W. W. 1074
Shapiro, M. 347
Shariff, S. M. 390
Sharma, C. 241
Sharma, G. L. 122
Sharma, N. N. 638, 668
Sharma, R. D. 621
Sharma, R. K. 1169
Sharma, S. B. 323
Sharma, S. K. 526
Sharma, U. K. 319
Sharma, Y. 199
Shavrov, G. N. 123
Shaw, J. 903
Shaw, J. E. 546
Sheaffer, C. C. 440
Shen, B. K. 253
Shepeleva, I. G. 187
Shepherd, R. L. 1048-1049
Shepshelev, Z. G. 523
Sherman, K. M. 626
Sherman, M. 809
Sherman, W. B. 436
Shesteperov, A. A. 141, 591, 856
Shibata, E. 193, 962
Shibuya, F. 1186
Shilova, T. B. 227
Shimizu, K. 680
Shishida, Y. 402
Shmeleva, L. V. 515
Shoemaker, P. B. 868
Shôji, T. 524, 869
Shokri, O. A. 722
Shubina, L. V. 124
Shumway, C. R. 678
Siddiqi, M. R. 290, 403, 563-564, 669, 946
Siddiqi, Z. A. 946
Siddiqui, M. A. 825, 1172
Siddiqui, Z. A. 947
Sidikov, D. T. 587
Sieczka, J. B. 434
Sigareva, D. D. 242
Sigurdson, D. C. 902
Sigurdson, W. J. 880
Silva, C. M. da 715
Silveira, S. G. P. da 8, 320
Silvestri, L. 948
Simon, A. 835, 866
Singh, D. B. 437
Singh, I. 526
Singh, L. S. 319
Singh, P. 96, 224
Singh, R. 980
Singh, R. P. 1147
Siqueira, W. J. 8
Sisler, G. M. de 948
Sisson, D. V. 1059
Sivapalan, P. 1029
Sivasankaran, K. 233
Skarbilovich, T. S. 291
Skryabin, K. I. 292
Sly, J. M. A. 1201
Smith, G. R. 705
Smith, G. S. 622
Smith, P. C. 4
Smith, W. W. 922
Smolik, J. D. 492
Soffes, A. R. 1050, 1164
Sohlenius, B. 194
Solov'eva, G. I. 243
Sosa, O., Jr. 46
Soteros, J. J. 525
South Africa, South African Sugar Association Experiment Station 553
Souza Filho, G. F. de 313
Spaull, V. W. 69, 127
Speckmann, G. J. 1037
Speir, T. W. 239
Spiegel, Y. 164
Spies, R. B. 792
Spieth, J. 271-272, 545
Spiridonov, S. E. 983
Stamova, L. 109
Stanton, J. M. 142, 744
Starr, J. L. 351, 705, 1051, 1076
Starr, M. P. 59
Steck, U. 1170
Steele, K. W. 870
Steiner, A. M. 485
Stelter, H. 438
Stender, C. 716
Stephan, Z. A. 321
Sternberg, P. W. 1195
Stewart, A. 391
Stinchcomb, D. 1191
Stinchcomb, D. T. 546, 903
Stirling, G. R. 143, 404, 594, 978, 1123
Stitz, K. 140
Stock, H. 9
Stockdale, F. E. 1192
Stolf, R. 322
Stone, A. R. 717, 743
Strider, D. L. 510
Strome, S. 1096
Stuckey, R. E. 827
Stumm-Tegethoff, B. F. A. 144
Subbotin, S. A. 633
Sudesh Ahuja 94
Sudhaus, W. 64, 405
Suina, S. 815
Sukul, N. C. 1131
Sulston, J. E. 755
Sultan Ali, M. A. 170
Sultan, M. S. 526, 670
Sultanul Haq 1078
Sumner, D. R. 795
Sundermann, C. A. 162
Suorsa, K. E. 871
Suresh, C. K. 979
Suzuki, H. 47
Suzuki, K. 145
Swanson, T. A. 718
Swarup, G. 323, 425
Szczygieł, A. 915, 1077
Takakura, S. 750
Takaoka, H. 35, 47, 665
Talamé, M. 442
Tamura, H. 459, 740
Tani, M. 125
Tanii, I. 473
Targovnik, H. S. 771
Tarjan, A. C. 439, 527, 547
Tayaputch, N. 1149
Taylor, A. L. 1010
Taylor, S. G. 1052
Tefft, P. M. 474
Teixeira, L. M. S. 719
Terent'eva, T. G. 591
Termeno, V. K. 702
Terrill, R. 1027
Theunissen, J. 342
Thiele, S. 53, 423, 945
Thies, J. A. 440
Thistle, D. 626
Thomas, S. 518
Thomas, S. H. 441, 1075
Thomason, I. J. 498, 1019
Thompson, M. J. 150
Thomson, J. N. 260
Threadgill, E. D. 795
Thurston, H. D. 434
Tiagi, B. 241, 876
Tiemann, H. 720
Tiilikkala, K. 872
Timmer, L. W. 873
Timofeeva, I. I. 515
Tingley, G. A. 772
Tisserat, N. A. 875
Tiwari, S. P. 324
Tiyagi, S. A. 1132, 1171-1172
Tobar Jiménez, A. 28
Todd, T. C. 874-875
Togashi, K. 48
Toida, Y. 325, 394, 406-408, 773
Tokeshi, H. 326
Tomlinson, G. 274, 1196
Tones, S. J. 877
Topham, P. B. 1126
Toro, J. 460, 554, 1017
Totino, L. C. 851
Townshend, J. L. 146, 369, 745
Travis, J. W. 829
Tremblay, E. 487
Treskova, V. S. 60
Trett, M. W. 671
Trevathan, L. E. 493
Triantaphyllou, A. C. 756, 896
Trinder, P. K. E. 449
Trivedi, P. C. 241, 876, 1026, 1169
Tropical Development and Research Institute, United Kingdom 1202
Trottin-Caudal, Y. 949
Trought, M. C. T. 528
Trudgill, D. L. 672, 877
Turner, S. J. 881
Turuleva, L. M. 100
Tyagunova, G. Ya. 409
Ullrich, H. L. 1085
Uncini, L. 442
United Kingdom, Department of Agriculture for Northern Ireland 595
United Kingdom, East Malling Research Station 275-276
United Kingdom, Tropical Development and Research Institute 1202
Upadhyay, K. D. 980
Usmanova, A. Z. 29
USSR, Vserossiiskii Nauchno-Issledovatel'skii Institut Zashchity Rastenii 557
Valdeolivas, A. 494
Valenzuela-A, A. 667
Valero, A. 335
Valocká, B. 318, 478-479
Van Den Berg, E. 68-69
Van der Werf, W. 777
Van Gundy, S. D. 129
Van Waerebeke, D. 89, 367-368, 411, 674, 1013-1014
Van Wyk, R. J. 328
Vanderhaeghen, R. 365, 882
Vanes, F. B. 356
Vanfleteren, J. R. 1088
Vardanis, A. 165
Varela, F. 460
Vargová, V. 495, 1124
Varshney, P. K. 195, 364
Vasilevskii, V. N. 200
Vavilov, N. I. 693
Vawdrey, L. L. 594
Veech, J. A. 1051, 1076
Veenhuis, M. 489, 496, 799
Velichko, E. S. 196, 800
Venetskaya, A. L. 60
Verma, B. S. 522
Verma, K. K. 522
Verma, R. S. 980
Vessey, J. C. 245
Vicente, N. 554, 1017
Viglierchio, D. R. 879
Vijayalakshmi, K. 1173
Villanueva, L. M. 197, 529
Vimal, O. P. 222
Vinciguerra, M. T. 1007, 1011
Vincx, M. 363, 642-644
Vinduška, L. 244
Vishwanath 980
Vito, M. di 10, 327, 410, 461, 467, 1098
Vlasenko, E. V. 443
Vogel, P. 964
Vogel, S. 357
Volodchenko, Z. G. 33, 329, 597
Volodkovich, S. D. 217
Von Mende, N. 938
Voorst, A. van 1037
Vorona, V. F. 530
Vovlas, N. 147-148, 410, 673, 746, 1012, 1059, 1099
Vrain, T. C. 470
Vranken, G. 159, 363, 365
Wachtel, M. F. 143
Waerebeke, D. van 89, 367-368, 411, 674, 1013-1014
Wajid Khan, M. 30
Walia, R. K. 149, 878
Walker, T. W. 49, 608
Walsh, J. F. 348
Walters, K. 171
Wancsucha, G. 742
Wang, K. C. 90
Ward, C. P. de 91
Ward, C. T. P. de 1015
Ward, S. 1094, 1096
Warwick, R. M. 359
Wasilewska, L. 567
Waterston, R. H. 256, 273, 1193
Watson, A. K. 596, 675, 776
Watson, R. N. 870
Waudo, S. W. 444
Weaver, C. F. 237
Weaver, E. V. 1141
Webster, J. 183
Webster, J. M. 36, 52, 601, 883, 967, 1065-1066
Weeks, R. 821
Wehrenberg, C. 249
Wehunt, E. J. 120
Weiland, J. J. 1189
Weinstein, P. P. 150
Werf, W. van der 777
Westphal, H. 1115
Wharton, D. A. 774, 1087
White, J. G. 166
Whitehead, A. G. 531, 1174
Whitford, W. G. 518
Widbom, B. 198
Wilcox, D. A. 721
Wilcoxson, R. D. 440
Wilhelm, N. S. 747
Wilhite, H. S. 212
Willems, K. A. 199
Willers, P. 748
Williams, D. D. 392
Wimble, D. B. 801
Winchell, K. L. 309

Windham, G. L. 1053, 1125
Windrich, W. A. 532, 1175
Wingfield, J. N. 449
Wingfield, M. J. 296, 749
Winkler, H. 742
Winoto-Suatmadji, R. 134
Winter, R. E. K. 681
Winterlin, W. 853
Wolf, N. 899
Womersley, C. 312, 1069
Wood, W. B. 270, 899
Woodfield, D. R. 939
Woodford, J. A. T. 804
Woods, R. A. 274, 880, 1196
Wouts, W. M. 412
Wrather, J. A. 678
Wright, V. L. 695
Wright, W. C. 830-831, 1153
Wu, J. Q. 950
Wu, X. 184
Wu, X. Y. 641
Wyk, R. J. van 328
Wyss, U. 894, 1097
Xue, Z. H. 950
Yadava, U. L. 120
Yaegashi, T. 394, 408
Yamada, E. 750
Yamada, H. 50
Yamaguchi, T. 50
Yamamoto, N. 739-740
Yamashita, T. T. 879
Yamazaki, K. 293
Yanes, J. 309
Yang, B. J. 92
Yang, J. S. 334
Yassin, A. M. 976
Yatagai, M. 680
Yeargan, K. V. 31
Yeates, G. W. 497, 870, 1104
Ying, K. C. 93
Young, J. R. 1153
Young, L. D. 686
Young, S. 167
Young, T. W. K. 801
Yu, X. 676
Yuen, P. M. 722
Yuhara, I. 293
Zacheo, G. 327, 447
Zancada, M. C. 413, 1016
Zaspel, I. 445
Zehr, E. I. 120
Zelazny, B. 51
Zelikov, E. K. 32
Zepp, L. 1077
Zhang, Y. C. 298
Zhelyazkova, R. 294
Zhukovskii, P. M. 693
Zik, K. M. El- 506
Zimbabwe, Tobacco Research Board 908
Zinno, Y. 1061
Zinov'ev, V. G. 33, 329, 597
Zoological Society of Orissa 558
Zucker, E. 545
Zuckermann, B. M. 180
Zuffo, N. L. 715
Zullini, A. 802
Zúñiga S., E. 533
Zunke, U. 414, 894, 1097

SUBJECT INDEX

Abies, *Hoplotylus montanus,* n.sp., Japan 388
Abutilon indicum, *Meloidogyne javanica,* India, new host record 575
Acantholaimus
Atlantic Ocean, morphology 642
morphology, reproductive system 642
Acantholaimus iubilus, Atlantic Ocean, morphology 642
Acantholaimus longistriatus, n.sp., Atlantic Ocean 642
Acantholaimus macramphis, n.sp., Atlantic Ocean 642
Acantholaimus maks, Atlantic Ocean, morphology 642
Acantholaimus microdontus, n.sp., Atlantic Ocean 642
Acantholaimus quadridentatus, n.sp., marine sediments, Mexico 380
Acantholaimus quintus, Atlantic Ocean, morphology 642
Acantholaimus septimus, Atlantic Ocean, morphology 642
Acanthopharyngoides bidentatus, n.sp., marine sediments, Mexico 380
Acer, *Longidorus macromucronatus,* USA, new geographical record 392
Achaea janata, *Hexamermis,* India, prevalence 333
Acrobeles oasiensis, n.sp., soil, Tunisia 372
Acrobelinae
ultrastructure
labial probolae 371
sense organs 371
Acrobeloides emarginatus, to *Acrolobus emarginatus,* n.g., n.comb. 632
Acrobeloides nanus
ultrastructure
labial probolae 371
sense organs 371
Acrolobus emarginatus, n.g., n.comb., for *Acrobeloides emarginatus* 632
Acroptilon repens, *Subanguina picridis,* biological control organisms 776
Adaptations to parasitism, plant parasitic nematodes, reviews 768
Adhatoda vasica, *Meloidogyne javanica,* India, new host record 575
Adiantum venustum, *Hemicycliophora guptai,* n.sp, India 377
Adoncholaimus 766
Aedes albifasciatus, *Strelkovimermis spiculatus,* n.sp., Argentina 1004
Aedes vexans, *Romanomermis culicivorax,* pathogenicity 337
Aegilops, *Meloidogyne naasi,* resistance 706
Aeneolamia varia, *Hexamermis dactylocercus* n.sp., Venezuela 86
Afenestra africana, morphology 661
Africa, plant parasitic nematodes, crops, maps, distribution 913
Afrina hyparrheniae, morphology 68
Afrina spermophaga
morphology 68
n.comb., for *Anguina spermophaga* 68
Afrina tumefaciens, morphology 68
Afrina wevelli, n.sp., *Eragrostis curvula,* South Africa 68
Afrodera africana, n.g., n.comb., for *Sarisodera africana* 412
Afrodorylaimus, taxonomy 386
Afrodorylaimus andrassyi, to *Prodorylaimus andrassyi,* n.comb. 386
Afrodorylaimus ranzii, to *Prodorylaimus ranzii,* n.comb. 386
Agamermis, *Lymantria obfuscata,* India 599
Aging
Caenorhabditis elegans 1088
Turbatrix aceti 154
Aglenchus, taxonomy 657
Aglenchus andrassyi, n.sp., pears, India 670
Agrostis palustris
Hoplolaimus, Triumph 861
Meloidogyne, Triumph 861
plant parasitic nematodes
fenamiphos 875
isofenphos 875
Tylenchorhynchus, Triumph 861
Agrotis segetum, *Neoaplectana bibionis,* biological control 342
Albizia julibrissin
Meloidogyne incognita, Fusarium oxysporum, resistance 430
Meloidogyne javanica, Fusarium oxysporum, resistance 430
Aldabra
Criconemella brevicauda, n.sp., *Fimbristylis* 69
Helicotylenchus erythrinae 69
Hemicriconemoides cocophillus 69
Ogma decalineatum 69
Paratylenchus mimulus 69
Rotylenchulus reniformis 69
Aldicarb
Aphelenchoides fragariae, Rhododendron 1148
Ditylenchus dipsaci
garlic 864
narcissus 1175
tulips 532
environmental degradation 871
Globodera pallida, potatoes 877
Globodera rostochiensis, potatoes 838, 877
Helicotylenchus dihystera, Pelargonium graveolens 512
Helicotylenchus microcephalus, Phaseolus lunatus 499
Hemicriconemoides mangiferae, coconuts 1155
Heterodera avenae, wheat 810
Heterodera glycines, soyabeans 814, 827, 848
Heterodera schachtii, beet 1135
Hoplolaimus aegypti, cotton 837
leaching 832
Longidorus, sugarbeet 504
Meloidogyne, coffee 240
Meloidogyne arenaria, Arachis hypogaea 237, 521, 821
Meloidogyne hapla
Arachis hypogaea 855
Pelargonium graveolens 512
Meloidogyne incognita
Capsicum annuum 876
cauliflowers 1158
grapes 843
peas 1169
Piper betle 216
tomatoes 220
Vigna radiata 526
Meloidogyne javanica
grapes 843
Phaseolus lunatus 499
mode of action 804
Paratrichodorus, sugarbeet 504
Paratrichodorus pachydermus, potatoes 804
plant parasitic nematodes
Capsicum frutescens 234
Citrus 505
Dioscorea rotundata 238
grapes 842
maize 830, 854
strawberries 932
sugarbeet 244
wheat 866
Pratylenchus coffeae, coffee 240
Pratylenchus sefaensis, Phaseolus lunatus 499
Pratylenchus thornei, Cicer arietinum 878
residues, groundwater 505
Scutellonema conicephalum, Pelargonium graveolens 512
Aldicarb *cont.*
toxicity
Daphnia laevis 507
rats 1141
Trichodorus, sugarbeet 504
Trichodorus cylindricus, potatoes 804
Trichodorus primitivus, potatoes 804
Tylenchulus semipenetrans, Citrus 233
Aldicarb sulphone, toxicity, *Daphnia laevis* 507
Aldicarb sulphoxide, toxicity, *Daphnia laevis* 507
Aldoxycarb
Belonolaimus longicaudatus, maize 520
Hoplolaimus galeatus, maize 520
physiological changes, *Meloidogyne incognita* 511
Algae, marine nematodes, Pacific Ocean, ecology 792
Algeria, *Xiphinema,* grapes, prevalence 306
Allium pskemense
Meloidogyne incognita, USSR, new host record 3
Meloidogyne javanica, USSR, new host record 3
Almonds, *Criconemella pruni,* Pakistan, new geographic record 22
Alnus, *Neoaplectana carpocapsae, Synanthedon culiciformis,* USA, biological control organisms 956
Aloe, plant parasitic nematodes, USA 1055
Aloe vera, *Scutellonema brachyurum,* pathogenicity 1055
Alphitobius diaperinus
Heterorhabditis heliothidis, pathogenicity 602
Neoaplectana carpocapsae, pathogenicity 602
Neoaplectana glaseri, pathogenicity 602
Alphitonia zizyphoides, *Paratylenchus tui,* n.sp., Tonga 83
Alysicarpus
Meloidogyne arenaria, resistance 1052
Meloidogyne incognita, resistance 1052
Meloidogyne javanica, resistance 1052
Amanita, *Howardula aoronymphium,* USA 340
Ammi visnaga, *Meloidogyne javanica,* India, new host record 575
Amoebae
Aphelenchoides besseyi, predation 509
Helicotylenchus dihystera, predation 509
Meloidogyne incognita, predation 509
Amphimallon solstitialis, entomophilic nematodes, USSR 604
Amphimermis, *Nilaparvata lugens,* China, infectivity 334
Amphimermis unka, insects, rice, associations 41
Amsinckia, *Anguina amsinckia,* USA 312
Amsinckia intermedia, *Anguina amsinckiae,* pathogenicity 1069
Anguina agrostis
Corynebacterium
Lolium
Australia
annual rygrass toxicity 964
control 965
Phleum, host reaction 1063
Trisetum flavescens, host reaction 1063
Anguina amsinckia
Amsinckia, USA 312
to *Mesoanguina amsinckia,* n.comb. 633
Anguina amsinckiae, *Amsinckia intermedia,* pathogenicity 1069
Anguina balsamophila, to *Mesoanguina balsamophila,* n.comb. 633
Anguina caricis, to *Heteroanguina caricis,* n.comb. 633

Anguina moxae, to *Mesoanguina moxae*, n.comb. 633
Anguina pharangii, to *Mesoanguina pharangii*, n.comb. 633
Anguina spermophaga, to *Afrina spermophaga*, n.comb. 68
Anguina tritici
Cymbopogon, plant extracts 522
wheat
India, surveys 940
resistance 115
Anguinae, revised 633
Annual reports (*see* reports)
Anomalostoma vazi, n.g., n.sp., *Passalus toriferus*, Brazil 375
Anoplostoma 766
Antarctica
Filipjeva crucis, n.sp. 631
Halalaimus 631
marine nematodes 631
Simpliconoma aenigmatodes, n.g., n.sp. 631
Anthurium, *Radopholus citrophilus*, resistance 688
Antigens
Caenorhabditis elegans 1094
spermatozoa 1096
Aorurus diplopodicola, to *Coronostoma diplopodicola*, n.comb. 674
Aphanitylenchus, *Ceratophyllus consimiliis*, host infertility 40
Aphanomyces
Xiphinema americanum, biological control agent 616
Xiphinema rivesi, biological control agent 616
Aphelenchids, *Chloranthus spicatus*, China 298
Aphelenchoides besseyi
amoebae, predation 509
Panicum maximum, seeds, control 228
rice, USSR, control, seeds 856
Aphelenchoides bimucronatus, n.sp., Arctic tundra, USSR 659
Aphelenchoides fragariae
lilies, pathogenicity 750
Rhododendron
aldicarb 1148
oxamyl 1148
strawberries, fenamiphos 525
Aphelenchoides lichenicola, n.sp., *Cladonia glauca*, Irish Republic 669
Aphelenchoides ritzemabosi
fungi, new host records 576
Saintpaulia, control 510
Aphelenchus avenae
biochemistry, cAMP-dependent protein kinase 165
metabolic inhibitors 471
Apples
Criconemella pruni, Pakistan, new geographic record 22
Longidorus, Switzerland, prevalence, distribution 933
Meloidogyne mali, Japan, morphology 394
Merlinius acuminatus, n.sp., Japan 1001
Nothocriconemella mutabilis, Pakistan, new geographic record 22
plant parasitic nematodes, replanting 742
Pratylenchus crenatus
pathogenicity 1077
resistance 1077
Pratylenchus neglectus
pathogenicity 1077
resistance 1077
Pratylenchus penetrans
1,3-dichloropropene 845
metham sodium 845
Rotylenchus alii, n.sp., Pakistan 1000
Rotylenchus cypriensis, Pakistan, new geographic record 1000
Rotylenchus pakistanensis, n.sp., Pakistan 1000
Scutylenchus baluchiensis, n.sp., Pakistan 79
Xiphinema, Switzerland, prevalence, distribution 933
Apples *cont.*
Xiphinema americanum, UC 70480 829
Xiphinema rivesi, UC 70480 829
Apricots, *Xiphinema diversicaudatum*, Arabis mosaic virus, transmission 56
Aquatic plants
free living nematodes, USA, survey 302
plant parasitic nematodes, USA, survey 302
AR 150867, plant parasitic nematodes, maize 854
Arabis mosaic virus
Xiphinema diversicaudatum
apricots, transmission 56
grapes, German Federal Republic 975
peaches, transmission 56
Arachis hypogaea
Criconemella ornata, general account 300
Hoplolaimus columbus, pathogenicity 729
Meloidogyne arenaria
aldicarb 237, 521, 821
carbofuran 521
1,3-dichloropropene 237
ethylene dibromide 521
fenamiphos 521
general account 300
oxamyl 521
prophos 521, 821
rotations 1154
Meloidogyne hapla
aldicarb 855
carbofuran 855
fenamiphos 855
nematicides 822
prophos 855
Meloidogyne incognita, resistance 719
plant parasitic nematodes, books 562
Pratylenchus brachyurus, general account 300
Scutellonema cavenessi
DBCP 1142
metham sodium 1142
Aranimermis aptispicula, n.g., n.sp., *Cesonia bilineata*, USA 664
Arbutus unedo, *Longidorus unedoi*, n.sp., Spain 984
Arctic tundra
Aphelenchoides bimucronatus, n.sp., USSR 659
Merlinius salechardicus, n.sp., USSR 659
Areca catechu, plant parasitic nematodes 907
Argentina
Camacolaimus barbatus, new geographic record 1015
Divisispiculimermis mirus, n.g., n.sp., *Chironomus* 636
Dolichodorus aquaticus, n.sp., *Bromus* 987
Haliplectus salicornius, n.sp. 1015
Leptolaimus sebastiani, n.sp. 1015
Leptolaimus vinnulus, new geographic record 1015
plant parasitic nematodes, surveys 948
Ptycholaimellus setosus n.sp.
marine sediments 91
seaweeds 91
Seriespinula alternata n.sp.
Paspalum 635
Stenandrium dulce 635
Strelkovimermis spiculatus, n.sp., *Aedes albifasciatus* 1004
Aromatic plants, plant parasitic nematodes, reports 551
Artemisia princeps, *Globodera hypolysi*, n.sp., Japan 393
Arthrobotrys amerospora
Belonolaimus longicaudatus
Hibiscus esculentus 235
maize, USA 235
Hoplolaimus galeatus
Hibiscus esculentus 235
maize, USA 235
Arthrobotrys amerospora *cont.*
Meloidogyne incognita, *Hibiscus esculentus* 235
Paratrichodorus christiei
Hibiscus esculentus 235
maize, USA 235
Arthrobotrys cladodes, biological control organisms 529
Arthrobotrys dendroides, n.sp., fruit trees, Malaysia 183
Arthrobotrys oligospora
electron dense microbodies 799
extract 247
hyphal coiling 489
Panagrellus redivivus, fungal cells, interactions 496
Artichokes, *Longidorus proximus*, Greece, morphology, males 1006
Artigasia dubitata, n.sp., *Passalus interruptus*, Brazil 375
Artigasia geopetiti, to *Glaber geopetiti*, n.comb. 375
Artigasia longicollis
sensu Artigas, 1926, to *Longior longicollis*, n.comb. 375
sensu Travassos & Kloss, 1958, to *Christiella longicollis*, n.comb. 375
Artigasia luizaugustoi, n.sp., *Passalus toriferus*, Brazil 375
Artigasia magnacaput, n.sp., *Passalus inundulifrons*, Brazil 375
Artigasia pauliani, to *Paraxyo pauliani*, n.comb. 375
Asparagus racemosus, *Meloidogyne javanica*, India, new host record 575
Atalodera
morphology 1003
phylogeny 1003
ultrastructure 1003
Ataloderinae
keys 412
taxonomy 412
Atlantic Ocean
Acantholaimus, morphology 642
Acantholaimus iubilus, morphology 642
Acantholaimus longistriatus, n.sp. 642
Acantholaimus macramphis, n.sp. 642
Acantholaimus maks, morphology 642
Acantholaimus microdontus, n.sp. 642
Acantholaimus quintus, morphology 642
Acantholaimus septimus, morphology 642
Halichoanolaimus macramphis, n.sp. 643
Halichoanolaimus macrophallus, n.sp. 643
Halichoanolaimus minor, morphology 643
marine nematodes
marine soils, survey 624
survey 1108
Syringolaimus renaudae, n.sp. 644
Atylosia, *Heterodera cajani*, resistance 549
Aubergines
cultural control, plant parasitic nematodes 823
Meloidogyne, resistance, genetics 421
Meloidogyne incognita
control, soil amendments 1129
Kenya, DD 218
pathogenicity 722
resistance 94, 722
Meloidogyne javanica, Kenya, DD 218
plant parasitic nematodes
organic fertilizers 823-824
population dynamics, fertilizers 785
Tylenchorhynchus brassicae, control, soil amendments 1129
Aulosphora, synonym of *Hemicycliophora* 77
Australia
Anguina agrostis
Corynebacterium Lolium
annual rygrass toxicity 964
control 965
Criconemella avicenniae, n.sp., *Avicennia marina* 391

Australia *cont.*
Criconemella curvata, virgin lands 592
Criconemella macrodora, virgin lands 592
Criconemella onoensis, virgin lands 592
Criconemella sphaerocephala, virgin lands 592
Discocriconemella, virgin lands 592
Discolaimus agricolus
n.sp.
Citrus 1009
grapes 1009
Discolaimus elegans
n.sp.
Citrus 1009
grapes 1009
Discolaimus major, morphology 1009
Discolaimus silvicolus, n.sp., *Eucalyptus* 1009
Discolaimus texanus, morphology 1009
Enchodelus coomansi, n.sp., *Avicennia marina* 391
free living nematodes, river water 1104
Meloidogyne, tobacco, pathogenicity 736
Meloidogyne hapla, potatoes 143
Mermis quirindiensis, n.sp., *Phaulacridium vittatum* 985
Mermithidae
Phaulacridium vittatum 332
river water 1104
Neoaplectana glaseri, Scarabaeidae, sugarcane, biological control 961
Paralongidorus australis
n.sp., rice 404
rice
anhydrobiosis 1123
surveys 594
virgin soils, surveys 594
plant parasitic nematodes, wheat, aldicarb 866
Tobrilus diversipapillatus, river water 1104
Tylenchorhynchus annulatus, rice 594
Austranema mexicanum, n.sp., marine sediments, Mexico 380
Austria
Isthmusimermis amphidis
n.sp. 381
river water 381
Avicennia marina
Criconemella avicenniae, n.sp., Australia 391
Enchodelus coomansi, n.sp., Australia 391
Axonchium (Axonchium) khasianum, n.sp., ferns, India 398
Axonchium (Axonchium) neoeletum, n.sp., *Sorghum vulgare*, India 398
Axonchium (Axonchium) parasaccatum, n.sp., *Terminalia myriocarpa*, India 398
Axonchium (Axonchium) phukani, n.sp., *Sorghum vulgare*, India 398
Bacillus, *Meloidogyne hapla*, soil, association 822
Bacillus subtilis, *Neoaplectana carpocapsae*, *Galleria mellonella*, interactions 36
Bacteria, *Ditylenchus destructor*, potatoes, bacterial rot 355
Baltic Sea, *Gammarinema gammari*, *Gammarus* 996
Bambusa, *Trichodorus borai*, n.sp., India 87
Bananas
Helicotylenchus, India, survey 324
Helicotylenchus multicinctus, reviews 919
Meloidogyne graminicola, India, survey 324
Meloidogyne incognita
histology 148
India, survey 324
interactions 148
plant parasitic nematodes 907
control, mulches 207
Pratylenchus, India, survey 324
Radopholus similis
India, prevalance 324
population dynamics 519
Bananas *cont.*
Rotylenchulus reniformis
histology 148
India, survey 324
interactions 148
Barley
Heterodera avenae
pathology, manganese deficiency 747
population dynamics 1115
resistance 105
larval penetration 425
root invasion 456
Heterodera schachtii
Finland, rotations 872
population dynamics 1115
Longidorus profundorum, pathogenicity 446
plant parasitic nematodes
fungi, Canada 18
Tropics, reviews 323
Basiria babhi, nom.nov., for *Basiria indica*, Bajaj & Bhatti, 1979 290
Basiria indica, Bajaj & Bhatti, 1979, to *Basiria babhi*, nom.nov. 290
Beach soils, marine nematodes, Guadeloupe 189
Beauveria bassiana, *Heterorhabditis heliothidis*, *Sitona discoideus*, New Zealand, biological control organisms 953
Beet
Heterodera schachtii
German Democratic Republic, catch crops, *Raphanus sativus* 684
German Federal Republic
control
crop rotation, nematicide 1135
intercropping 1136
resistance 418
reviews 1023
Behaviour (*see also* feeding behaviour)
Bursaphelenchus xylophilus 762
Coronostoma 1014
Coronostoma diplopodicola 674
Heterodera glycines 752
Heterorhabditis bacteriophora, sperm 990
Hirschmanniella oryzae 464, 1105
Meloidogyne incognita, juveniles 156
Neoaplectana carpocapsae 796
Panagrellus redivivus 1087
plant parasitic nematodes 759
Pratylenchus penetrans 470
Belgium
Ditylenchus dipsaci
oats
resistance 419
reviews 1024
Heterodera avenae
oats
resistance 419
reviews 1024
Longidoridae
hops, virus transmission 619
potatoes, virus transmission 619
strawberries, virus transmission 619
marine nematodes, respiration, productivity 362
Paratrichodorus, tobacco rattle virus, potatoes, prevalence 58
Trichodoridae
hops, virus transmission 619
potatoes, virus transmission 619
strawberries, virus transmission 619
Trichodorus, tobacco rattle virus, potatoes, prevalence 58
Bellodera utahensis, n.g., n.comb., for *Cryphodera utahensis* 412
Belonolaimus longicaudatus
Citrus, pathogenicity 130
Cynodon dactylon
fenamiphos 844
isazophos 844
prophos 844
Dolichodorus heterocephalus, maize, interactions, pathogenicity 457
Hibiscus esculentus
Arthrobotrys amerospora 235
Belonolaimus longicaudatus *cont.*
Hibiscus esculentus cont.
fenamiphos 235
maize
aldoxycarb 520
carbofuran 236, 520
DD 236
1,3-dichloropropene 520
ethylene dibromide 520
fenamiphos 520
metham sodium 520
oxamyl 520
prophos 520
subsoiling 236
terbufos 520
USA
Arthrobotrys amerospora 235
fenamiphos 235
Benfuracarb
Ditylenchus dipsaci, onions 1146
Heterodera carotae, carrots 1146
Meloidogyne javanica, tomatoes 1146
Benomyl, *Meloidogyne incognita*, soyabeans 803
Benomyl carbofuran, *Meloidogyne incognita*, soyabeans 803
Benomyl oxamyl, *Meloidogyne incognita*, soyabeans 803
Beta, plant parasitic nematodes, resistance, host genetics 20
Beta vulgaris, *Heterodera schachtii*, resistance 1037
Betula, *Rotylenchus magnus*, n.sp., Spain 1016
Bibliographies
free living nematodes 547
Poland 567
nematology
Japan 912
USSR 291
plant parasitic nematodes, German Federal Republic 1197
Bidera
keys 412
morphology 412
synonymy 412
Bidera avenae
synonymy 412
wheat, resistance 702
Bidera filipjevi, wheat, USSR, males, morphology 653
Biochemistry
amino acids
Heterodera schachtii, cysts 741
Meloidogyne incognita 725
Neoaplectana glaseri 469
carbohydrates
Globodera pallida 758
Globodera rostochiensis 758
cuticular saccharides
Globodera pallida 758
Globodera rostochiensis 758
enzymes
Aphelenchus avenae 165
Caenorhabditis elegans 754, 765, 1088-1090
Ditylenchus destructor 117, 137, 462
Globodera rostochiensis 137
Meloidogyne 756
Meloidogyne incognita 162
exoenzymes, plant parasitic nematodes 768
isoenzymes
Globodera pallida 155
Globodera rostochiensis 155
nucleic acids, *Caenorhabditis elegans* 755, 1089-1090, 1189
pheromones
free living nematodes, reviews 759
plant parasitic nematodes, reviews 759
proteins
Caenorhabditis elegans 473, 1091
Globodera pallida 890
Globodera rostochiensis 890
Heterodera glycines 71, 757
Meloidogyne incognita 1093
Meloidogyne javanica 164
Mermis nigrescens 152

Biochemistry *cont.*
steroids
Caenorhabditis elegans, reviews 753
plant parasitic nematodes, reviews 753
Biological control
Acroptilon repens 776
Aedes vexans 337
Aphelenchoides besseyi 509
Belonolaimus longicaudatus 235
Cephalcia abietis 960
Cephalcia falleni, forest trees 45
Ceratophyllus consimilis, *Aphanitylenchus* 40
Chile, reviews 533
Dendroctonus ponderosa, *Pinus* 952
Globodera 188
Helicotylenchus dihystera 509
Heliothis zea 598
Heterodera 188
Heterodera avenae 1168
wheat 835
Heterodera glycines 177
Heterodera schachtii
fungi 244
Raphanus sativus 206
Hylobius abietis 346
insects 606
forest trees 45
reviews 39, 345
Lymantria dispar 607
Meloidogyne 188
Meloidogyne acronea 972
Meloidogyne incognita 184, 235, 509
Paecilomyces lilacinus 223, 968
Philippines 529
tomatoes 1165
Verticillium chlamydosporium 968
Meloidogyne javanica 1140
bacteria 502
Migdolus fryanus, Brazil 330-331
Neoaplectana bibionis, *Agrotis segetum* 342
Neoaplectana carpocapsae, Isoptera 43
Nilaparvata lugens 334
Oryctes rhinoceros 51
Otiorhynchus rugifrons 605
Otiorhynchus sulcatus 37, 605
strawberries 955
Paratrichodorus christiei 235
plant parasitic nematodes
Citrus, USA, reviews 225
fungi 550
Plutella xylostella 50
reviews 1166
Romanomermis culicivorax, *Psorophora columbiae* 608
Scarabaeidae 951
sugarcane 961
Sitona discoideus 953
Spodoptera exigua 341
Subanguina picridis, weeds 596
sugarcane 46
Synanthedon culiciformis 956
Synanthedon myopaeformis 336
Synanthedon resplendens 956
Synanthedon typhiaeformis 336
Tirathaba rufivena 51
Xiphinema americanum 616
Xiphinema rivesi 616
Zuezera pyrina 336
Biological control organisms
Arthrobotrys cladodes 529
entomophilic nematodes 343
Heterorhabditis heliothidis 341
Neoaplectana carpocapsae 331, 341
Neoaplectana glaseri 330-331
Paecilomyces lilacinus 529
Biology, marine nematodes, conference 286
Bithienyl derivatives, *Bursaphelenchus xylophilus* 826
Bog soils, *Globodera pallida*, potatoes, nematicides 1170
Books
Dorylaimidae, taxonomy 560
Nematoda
Brassica 288
Sesamum indicum 288
pesticides 561, 1200
pests, onions 1202
plant parasitic nematodes 285
Books *cont.*
plant parasitic nematodes *cont.*
Arachis hypogaea 562
rice 289
taxonomy 292
Qudsianematidae, taxonomy 559
Tylenchida 563-564
taxonomy 290
Botswana, *Xiphinema stockeri*, n.sp., soil 383
Bouteloua curtipendula, *Tylenchorhynchus claytoni*, pathogenicity, defoliation 1060
Bovienema gifuchsi, nom.nov., for *Parasitylenchus contortus chalcographi* 290
Brassica, Nematoda, books 288
Brassica napus oleifera, *Heterodera schachtii*, hatching 466
Brazil
Anomalostoma vazi, n.g., n.sp., *Passalus toriferus* 375
Artigasia dubitata, n.sp., *Passalus interruptus* 375
Artigasia luizaugustoi, n.sp., *Passalus toriferus* 375
Artigasia magnacaput, n.sp., *Passalus inundulifrons* 375
Coronocephalus ovilamelatus, n.sp., *Passalus morio* 375
Coronocephalus ovipunctatus, n.g., n.sp., *Passalus punctatostriatus* 375
Ditylenchus dipsaci, garlic, prevalence 8
Hystrignathus metropolitanus, n.sp., *Passalus punctatostriatus* 375
Hystrignathus papillophorus, n.sp., *Passalus morio* 375
Hystrignathus paulistanus, n.sp., *Passalus punctatostriatus* 375
Klossiella brevistoma, n.sp., *Passalus punctatostriatus* 375
Klossiella longistoma, n.sp., *Passalus toriferus* 375
Klossiella travassosi, n.g., n.sp., *Passalus alius* 375
Klossnema repentina, n.g., n.sp., *Passalus punctatostriatus* 375
Meloidogyne, *Vigna unguiculata*, resistant varieties 708
Meloidogyne exigua, weeds, new host records 583
Meloidogyne incognita
Piper nigrum, pathogenicity 1058
Zingiber officinale 320
Meloidogyne javanica
sugarcane, control 850
Zingiber officinale 320
Neoaplectana carpocapsae, *Migdolus fryanus*, biological control 331
Neoaplectana glaseri
Migdolus fryanus 330
biological control 331
Peltamigratus amazonensis, n.sp., *Vigna unguiculata* 630
Peltamigratus areolatus, n.sp., maize 630
Peltamigratus cerradoensis, n.sp., *Diospyrus hispida* 630
Peltamigratus christiei, morphology 630
Peltamigratus holdemani, morphology 630
Peltamigratus ibiboca, morphology 630
Peltamigratus levicaudatus, n.sp., rice 630
Peltamigratus nigeriensis, morphology 630
Peltamigratus paraensis, n.sp., *Guilielma speciosa* 630
Peltamigratus raskii, n.sp., grasses 630
plant parasitic nematodes
conferences 909
soyabeans, resistance 715
sugarcane 326
control 851
minimum tillage systems 322
nematicides 849
prevalence 573
survey 313
Brazil *cont.*
Pratylenchus zeae, sugarcane, control 850
Rotylenchulus reniformis, weeds, susceptibility 572
Sclerolabia minima, n.g., n.sp., *Theobroma cacao* 374
Bromus, *Dolichodorus aquaticus*, n.sp., Argentina 987
Broot, plant parasitic nematodes, maize 830, 854
Brumptaemilius, diagnosis emended 89
Brumptaemilius monsarratae, n.sp., *Pachybolus laminatus*, Ivory Coast 89
Brumptaemilius venardi, n.sp., *Pachybolus laminatus*, Ivory Coast 89
Bulgaria
Meloidogyne
forest trees, control 501
tomatoes, resistance 109
Paratylenchus nanus, tobacco, morphological variations 66
plant parasitic nematodes, fruit trees, prevalence 299
Pratylenchus, tobacco, prevalence 294
Burkina Faso
Coronostoma gautuni, n.sp., *Ophistreptus digitulatus* 1014
plant parasitic nematodes, sugarcane, nematicides, economic loss 448
Bursaphelenchus
egg disinfection 887
Nitulidae, transmission 603
taxonomy 640
Bursaphelenchus mucronatus
egg shells 640
female tail tips 640
Pinus, China 92
Pinus densiflora, pathology 740
Bursaphelenchus xylophilus
bithienyl derivatives 826
egg shells 640
female tail tips 640
forest trees, moult inducing factor 429
genetics, gametogenesis 536
hydroxytrematone 826
Monochamus alternatus
Pinus, Japan 962
Pinus densiflora, Japan, transmission 48
Picea pungens, pathogenicity 1068
Pinus
China 92
control 921
geographical distribution 921
life history 921
losses 921
metam-ammonium 524, 869
pathogenicity 1068
water stress 145
pathotypes 681
resistance
ethylene production 698
immobilization substance 680
USA 749
Pinus banksiana, Canada, mistletoe 296
Pinus densiflora
Japan, host mortality 728
pathogenicity 735
bacterial contamination 459
light 1061
pathology 739-740
Pinus radiata, New Zealand 552
Pinus thunbergii
Japan
forest influences, stream flow 125
host mortality 728
seasonal variation 193
pathogenicity 735
bacterial contamination 459
Pseudotsuga menzezii, pathogenicity 1068
sexual attractants 762
Cabbage
plant parasitic nematodes, USSR 24
Seinura filicaudata, USSR, new geographic record 24

Cabbages
Hirschmanniella oryzae 464
root attraction 1105
Cactodera, morphology 412
Cactodera acnidae, n.comb., for *Heterodera acnidae* 412
Caenorhabditis briggsae
development, azasteroid 150
reproduction
lathyrogenous agents 1085
piperonyl butoxide 1085
Caenorhabditis elegans
acetylcholinesterase, coordinated movement, gene 261
aldicarb-resistant mutants 267
anthelmintics, mode of action 274
biochemistry
chromatin-dependent RNA polymerase II reaction 1089
DNA dependent RNA polymerase II reaction 1090
DNA glycosylase activity 765
esterase 754
myosin 473
nuclease digestion 1088
rDNA 755
steroids, reviews 753
cell lineage 259
differentiation 255
vulva 1195
chromosomes, Dp 1 mutant 538
collagenous proteins, moulting 1091
development 472
cell lineage 900
embryogenesis 475
microfilaments, differentiation 477
programmed cell death 1188
embryology, cytoplasmic factors 270
extrachromosomal DNA, transformation 546
genetics 260, 472, 539, 544
cloning, linkage selection 254
drug-resistant mutants 1196
embryos, cytoplasmic organization 899
muscle development 273
muscle organization 465
mutants, β-glucuronidase 901
myosin genes, cloning 898
psoralen, spermatogenesis 257
reviews, cell lineage 897
temperature-sensitive mutants 265
transformation, extrachromosomal DNA 903
X-autosome fusion chromosome 902
X-autosome translocation 895
heterochronic mutations 541
molecular genetics 543
collagen genes 1191
major gut esterase locus 542
mutants 1188
myosin heavy chain genes 1192
transcription, cell free extracts 540
unc-22 gene 1193
v-*abl* oncogene 1189
muscle protein genes 1187
mutant, morphological and biochemical defects 266
mutants, amber suppressors 263
mutations, *unc-52* gene 264
myosin heavy chain, mutation sequence analysis 256
neurobiology 258
neuronal connectivity, reviews 166
physiology
muscle organization 465
temperature, desiccation 767
reproduction, inhibition, diethylstilbestrol 1190
reviews
aging 468
sex determination 262
spermatozoa
antigens 1096
cytology 1094
techniques, fixation, transmission electron microscopy 880
transposable element Tc1 269
vitellogenin gene, nucleotide sequence 545
Caenorhabditis elegans *cont.*
vitellogenin genes 272
yolk protein genes 271
Cajanus cajan
Heterodera cajani, triazophos 1162
Meloidogyne, resistance 549
Meloidogyne javanica
pathology 1017
resistance 1017
plant parasitic nematodes, India 549
Calamus viminalis, *Trichodorus complexus,* n.sp., India 87
Californidorus, taxonomy 400
Californidorus clavicaudatus, n.sp., *Salix,* USA 400
Californidorus cralleyi, n.sp., *Crataegus,* USA 400
Californidorus cylindricaudatus, n.sp., *Ulmus americana,* USA 400
Californidorus pinguicaudatus, morphology, male 400
Calligonum rubescens
Leipotylenchus secalis, n.sp., USSR 648
Meloidogyne turkestanica, n.sp., USSR 88
Calligonum setosum, *Meloidogyne turkestanica,* n.sp., USSR 88
Calotropis procera, *Meloidogyne javanica,* India, new host record 574
Calyptronema pulchrum, n.sp., Gulf of Mexico 992
Camacolaimus barbatus, Argentina, new geographic record 1015
Camellia japonica, *Sphaeronema camelliae,* n.sp., Japan 629
Camellia sinensis, *Meloidogyne camelliae, Trifolium repens,* Japan, new host record, seasonal dynamics 293
Cameroon
Sclerolabia africana, n.g., n.sp., soil 374
Sclerolabia camerunensia, n.g., n.sp., grasses 374
Willinema laopangense, n.sp., grasses 373
Willinema paraparvum, n.sp., grasses 373
Canada
Bursaphelenchus xylophilus, Pinus banksiana, mistletoe 296
Meloidogyne microtyla, Festuca rubra, new host record 589
plant parasitic nematodes
fungi, barley 18
strawberries 932
Plectus amorphotelus, n.sp. 378
Plectus spicacaudatus, n.sp. 378
Pratylenchus sensillatus, n.sp., *Phleum pratense* 369
Capsicum, *Meloidogyne javanica,* rotations 1161
Capsicum annuum
Meloidogyne
resistance 426
genetics 421
Meloidogyne incognita
aldicarb 876
carbofuran 876
pathogenicity 460
pathology, yield losses 1075
Pythium aphanidermatum, interactions 969
resistance 1028
Rhizoctonia solani, interactions 969
Paralongidorus, Mauritius, new geographic record 385
Paralongidorus buchae, n.sp., Mauritius 385
Capsicum frutescens
plant parasitic nematodes
aldicarb 234
carbofuran 234
Tenekil 234
Caragana turkestanica, *Meloidogyne caraganae,* n.sp., USSR 88
Carbathion (*see* metham sodium)
Carbofuran
Belonolaimus longicaudatus, maize 236, 520
Ditylenchus dipsaci, garlic 864
Carbofuran *cont.*
Globodera pallida, potatoes 1170
Helicotylenchus dihystera, Pelargonium graveolens 512
Helicotylenchus microcephalus, Phaseolus lunatus 499
Hemicriconemoides mangiferae, coconuts 1155
Heterodera avenae, wheat 810
Heterodera glycines, soyabeans 827
Hirschmanniella gracilis, rice 201
Hirschmanniella oryzae 751
Hoplolaimus galeatus, maize 236, 520
Meloidogyne, coffee 240
Meloidogyne arenaria, Arachis hypogaea 521
Meloidogyne hapla
Arachis hypogaea 855
Pelargonium graveolens 512
Meloidogyne incognita 879
Capsicum annuum 876
cauliflowers 1158
grapes 843
peas 1169
Piper betle 216
tomatoes 220
Vigna radiata 526
Meloidogyne javanica
grapes 843
Phaseolus lunatus 499
sugarcane 850
paddy soils, leaching 1149
plant parasitic nematodes
Capsicum frutescens 234
Dioscorea rotundata 238
grapes 842
maize 830, 854
sugarbeet 244
sugarcane 849, 851
Pratylenchus, maize 236
Pratylenchus coffeae, coffee 240
Pratylenchus penetrans, lucerne 440
Pratylenchus scribneri, maize 874
Pratylenchus sefaensis, Phaseolus lunatus 499
Pratylenchus thornei, Cicer arietinum 878
Pratylenchus vulnus 879
Pratylenchus zeae, sugarcane 850
Scutellonema conicephalum, Pelargonium graveolens 512
toxicity, *Gambusia affinis* 1149
Trichodorus christiei, maize 236
Xiphinema index 879
Carbofuran benomyl, *Meloidogyne incognita,* soyabeans 803
Carbosulfan
Hirschmanniella mucronata, rice 857, 1163
Meloidogyne, coffee 240
Pratylenchus coffeae, coffee 240
Cardamoms, plant parasitic nematodes 907
Caribbean Sea
Dracograllus antillensis, n.sp. 986
Draconematidae 986
marine nematodes 986
Carica papaya
Meloidogyne incognita
pathogenicity 126
resistance 126
Carnations, *Paratylenchus dianthus,* population dynamics 487
Carnoya mackintoshae, n.sp., *Rhinocricus bernardinensis,* Paraguay 627
Carpinus betulus, plant parasitic nematodes, USSR, seasonal variations 581, 588
Carrots
Heterodera carotae
benfuracarb 1146
isazophos 1146
methyl isothiocyanate 1146
Hirschmanniella oryzae 464
Meloidogyne hapla, resistance 701
Meloidogyne javanica
development 1034
resistance 1034
Cassia fasciculata, *Meloidogyne hapla,* resistance 705
Cassia occidentalis, *Meloidogyne javanica,* India, new host record 574

Catenaria anguillulae
Xiphinema americanum, biological control agent 616
Xiphinema rivesi, biological control agent 616
Catharanthus roseus, plant parasitic nematodes, India 551
Cauliflowers
Meloidogyne incognita
aldicarb 1158
carbofuran 1158
Rotylenchulus reniformis, pathology 132
Celosia grandifolia, *Meloidogyne*, India 925
Cephalcia abietis, Steinernematidae, Czechoslovakia, biological control organisms 960
Cephalcia falleni
Heterorhabditis bacteriophora, biological control 45
Neoaplectana, biological control 45
Neoaplectana carpocapsae, biological control 45
Cephalenchus, keys 658
Cephalenchus daisuce, n.sp., *Cirsium suffultum*, Japan 658
Cephalenchus nemoralis, n.sp., forest trees, Japan 658
Cephalenchus planus, Japan, redescribed 658
Cephalenchus potamophilus, n.sp., *Scirpus wicherai*, Japan 658
Ceramotylenchus tesselatus, n.g., n.sp., soil, USA 637
Ceratophyllus consimiliis, *Aphanitylenchus*, host infertility 40
Cereals
Heterodera avenae
France
pathogenicity, polymorphism 1071
pathotypes 458
fungi, German Federal Republic 1168
German Democratic Republic, population dynamics 175
German Federal Republic, population levels 1167
Nematophthora gynophila, interactions 219
resistance 713
Verticillium chlamydosporium, interactions 219
Rotylenchulus reniformis, China 93
Cesonia bilineata, *Aranimermis aptispicula*, n.g., n.sp., USA 664
Cetonia, *Coronostoma diplopodicola*, Madagascar, predation on Thelostomatidae 674
Check list, plant parasitic nematodes, vegetables, Spain 297
Cheilanthes, *Tylenchus arcuatus*, India, new host record 377
Chemotaxonomy
Heterodera glycines, geographical isolates 71
Meloidogyne 1194
Radopholus citrophilus, geographical isolates 688
Cherries
Longidorus macrosoma, raspberry ring spot virus, Switzerland, prevalence, altitude 971
Pratylenchus crenatus
pathogenicity 1077
resistance 1077
Pratylenchus neglectus
pathogenicity 1077
resistance 1077
Chile
biological control, reviews 533
Criconema certesi, n.sp., soil 667
Hemicycliophora macrodorata, n.sp., soil 667
Meloidogyne, race identification 16
Nematoda, mosses 13
Ogma terrestris, n.sp., soil 667
Paratylenchus fueguensis, n.sp., soil 667
Chiloplacus minimus
ultrastructure
labial probolae 371
sense organs 371
China
Amphimermis, *Nilaparvata lugens*, infectivity 334
Aphelenchids, *Chloranthus spicatus* 298
Bursaphelenchus mucronatus, *Pinus* 92
Bursaphelenchus xylophilus, *Pinus* 92
Cryptaphelenchoides propora, n.sp., *Pinus* 92
Cylindrotylenchus pini, n.g., n.sp., *Pinus* 92
Enchodelus southeyi, n.sp., *Juniperus chinensis* 646
Heterodera glycines, soyabeans, resistance 428
Meloidogyne fujianensis, n.sp., *Citrus reticulata* 396
Meloidogyne hapla, *Vinca minor* 7
Meloidogyne incognita, *Hibiscus cannabinus*, prevalence 950
Rotylenchulus reniformis
cereals 93
legumes 93
root crops 93
vegetables 93
Chironomus, *Divisispiculimermis mirus*, n.g., n.sp., Argentina 636
Chironomus plumosus
Hydromermis borokii, USSR, morphology 649
Limnomermis angustifrons, USSR, morphology 649
Chloethocarb, *Heterodera avenae*, wheat 810
Chloranthus spicatus, Aphelenchids, China 298
Chondronema passali, taxonomy 290
Chondronematidae, n.fam. 290
Chondronematina, n.subord. 290
Chondronematinae, n.subfam. 290
Chondronematoidea, n.superfam. 290
Chortoicetes terminifera, *Mermis quirindiensis*, n.sp., Australia 985
Christiella longicollis, n.comb., for *Artigasia longicollis*, sensu Travassos & Kloss, 1958 375
Christiellinae
keys 375
taxonomy 375
Chromadorella cobbiana, n.comb., for *Prochromadorella cobbiana* 631
Chromadorita minima, sea water, USA, species patterns 357
Chromaspirinia longisetosa, n.sp., marine sediments, Mexico 380
Chrysanthemum
Hoplolaimus galeatus, fenamiphos 517
Meloidogyne incognita
cyromazine 517
fenamiphos 517
Cicer arietinum
Heterodera ciceri
infectivity 1086
life history 1099
n.sp., Syria 410
pathogenicity 1099
Meloidogyne incognita
Pakistan 2
resistance 122
Meloidogyne javanica
Fusarium oxysporum, interactions 621
resistance 108
plant parasitic nematodes
India 549
resistance 98
Pratylenchus thornei
aldicarb 878
carbofuran 878
fensulfothion 878
pathogenicity 149
phorate 878
Cirsium suffultum, *Cephalenchus daisuce*, n.sp., Japan 658
Citrus
Belonolaimus longicaudatus, pathogenicity 130
Citrus cont.
Criconemella parvula, Pakistan, new geographic record 22
Discolaimus agricolus, n.sp., Australia 1009
Discolaimus elegans, n.sp., Australia 1009
Helicotylenchus abunaamai, Cuba, new geographic record 27
Helicotylenchus cavenessi, Cuba, new geographic record 27
Helicotylenchus microcephalus, Cuba, new geographic record 27
Helicotylenchus paraconcavus, Cuba, new geographic record 27
Macroposthonia ornata, Cuba, new geographic record 27
plant parasitic nematodes
aldicarb 505
biological control, USA, reviews 225
Cuba, survey 27
reviews 304
Pratylenchus coffeae, USA 304
Prodorylaimus, Nigeria, morphology 386
Quinisulcius acutus, Cuba, new geographic record 27
Radopholus citrophilus
resistance 692
USA 304
Radopholus similis, control 231
Tylenchulus semipenetrans
aldicarb 233
carbohydrate partitioning 129
control 231
fenamiphos 212
general account 873
oxamyl 212
Spain 568
USA 304
Citrus aurantifolis, *Trophotylenchulus andhraensis* n.sp., India 390
Citrus lemon, *Tylenchus rohtargus*, n.sp., India 382
Citrus reticulata, *Meloidogyne fujianensis*, n.sp., China 396
Cladonia glauca
Aphelenchoides lichenicola, n.sp., Irish Republic 669
Ottolenchus cabi, n.sp., Irish Republic 669
plant parasitic nematodes, Irish Republic, surveys 669
Cleome spinosa, *Heterodera glycines*, resistance 1040
Clitoria ternatea, *Meloidogyne incognita*, resistance 1032
Clovers
Ditylenchus dipsaci, resistance 417
Meloidogyne arenaria, resistance 709
Meloidogyne incognita, resistance 709
Meloidogyne javanica, resistance 709
Cocoa, plant parasitic nematodes 907
Coconuts
Hemicriconemoides mangiferae
aldicarb 1155
carbofuran 1155
plant parasitic nematodes 907
Coffea arabica, *Tylenchorhynchus amgi*, n.sp., India 384
Coffee
Meloidogyne
aldicarb 240
carbofuran 240
carbosulfan 240
Meloidogyne exigua, extraction techniques 535
Pratylenchus coffeae
aldicarb 240
carbofuran 240
carbosulfan 240
Coleus aromaticus, *Meloidogyne javanica*, India, new host record 575
Colocasia esculenta
Pratylenchus coffeae
Japan
control 455
pathogenicity 455

Colombia
Helicotylenchus dihystera, fungi, *Sorghum*, associations 612
Heterodera, fungi, *Sorghum*, associations 612
plant parasitic nematodes, *Sorghum*, surveys 493
Pratylenchus zeae, fungi, *Sorghum*, associations 612
Quinisulcius acutus, fungi, *Sorghum*, associations 612
Sectonema anisonchium, n.sp., forest soil 403
Sectonema macbethi, forest soil 403
Sectonema mucrodens, n.sp., forest soil 403
Sectonema truxum, n.sp., forest soil 403
Comesomatidae
morphology 84
taxonomy 84
Commiphora wightii*, *Meloidogyne javanica, India, new host record 575
Computer software, nematology 906
Conferences 558
Brazilian Society of Nematologists 909
Fifth International Meiofauna Conference 159, 189, 286
Nematology, South Africa 284
Organization of Tropical American Nematologists 554
Problems of soil zoology, USSR 910
Stem Nematodes of Agricultural Crops and their Control, USSR 23-24, 29, 32-33, 100, 107, 110-111, 117-118, 123-124, 137, 141, 200, 202, 204, 208, 210, 214, 229, 242-243, 248, 250, 427, 557
Weeds, Pests and Diseases of Grassland and Herbage Legumes 556
Zoological Society of Pakistan 555
Contortylenchus diplogaster*, *Ips sexdentatus, host proteins 454
Control
Anguina agrostis, *Corynebacterium*, *Lolium*, Australia 965
Anguina tritici 522
Aphelenchoides besseyi
Panicum maximum, seeds 228
rice, USSR 856
Aphelenchoides fragariae, *Rhododendron* 1148
Aphelenchoides ritzemabosi, *Saintpaulia* 510
Belonolaimus longicaudatus
Cynodon dactylon 844
maize 236, 520
Bursaphelenchus xylophilus, *Pinus* 524, 869, 921
Criconemella xenoplax, peaches 862-863
Ditylenchus
fruits, USSR 214
strawberries, USSR 204
vegetables, USSR 214
Ditylenchus destructor, potatoes, USSR 200, 210, 243, 523
Ditylenchus dipsaci 508
garlic 864
legumes, France 1022
narcissus 1175
onions 1138, 1146
potatoes, USSR 530
strawberries 110
USSR 202
tulips 532
Globodera pallida
German Federal Republic 1134
potatoes 877
German Federal Republic 1170
Globodera rostochiensis
German Federal Republic 1134
potatoes 838, 877, 1021
Poland 1042
USSR 515, 819
Helicotylenchus dihystera, *Pelargonium graveolens* 512
Helicotylenchus microcephalus, *Phaseolus lunatus* 499
Helicotylenchus multicinctus, bananas 919
Control *cont.*
Hemicriconemoides mangiferae, coconuts 1155
Heterodera avenae 522
barley 175
cereals 175
German Federal Republic 1167
German Federal Republic 1134
wheat 142, 810
Heterodera cajani, *Cajanus cajan* 1162
Heterodera carotae 508
carrots 1146
Heterodera glycines
soyabeans 814, 827, 848, 859
USSR 820
Heterodera schachtii
beet
German Democratic Republic 684
German Federal Republic 1135-1136
German Federal Republic 1134
mustard 1136
radishes 1136
sugarbeet 221
catch crops 466
German Democratic Republic 1144
USSR 840
Hirschmanniella gracilis, rice 201
Hirschmanniella mucronata, rice 857, 1163
Hoplolaimus, *Agrostis palustris* 861
Hoplolaimus aegypti, cotton 837
Hoplolaimus columbus, soyabeans 847
Hoplolaimus galeatus
Chrysanthemum 517
maize 236, 520
Longidoridae, grapes 833
Longidorus, sugarbeet 504
Longidorus elongatus, sugarbeet 242
Meloidogyne
Agrostis palustris 861
forest trees, Bulgaria 501
grapes 833
larvae, soil, USSR 205
soyabeans 14
vegetables 230
Vigna unguiculata 213
Meloidogyne arenaria 211
Arachis hypogaea 237, 521, 821, 1154
Meloidogyne chitwoodi, potatoes 158
Meloidogyne hapla
Arachis hypogaea 855
Pelargonium graveolens 512
potatoes 143
Rosa 811
Meloidogyne incognita 224, 511, 879, 1132, 1171
aubergines 218, 1129
Capsicum annuum 876
cauliflowers 1158
Chrysanthemum 517
Corchorus capsularis 808, 867
crops 815
cucumbers 1128
Cucumis melo 241
Cucurbita pepo 1153
grapes 843
Hibiscus esculentus 235
Ipomoea batatas 805, 1044
kenaf, China 950
maize 1153
okra 1131
peas 1169
Piper betle 216, 1150-1151, 1159
soyabeans 803
tobacco 816, 831
tomatoes 220, 222, 868, 1145, 1147, 1172
Vigna radiata 526, 1173
Vigna unguiculata 1143
Meloidogyne javanica 508, 522
aubergines 218
Capsicum 1161
grapes 843, 1133
melons 1161
Phaseolus lunatus 499
sugarcane 850
tobacco 816, 908
Control *cont.*
Meloidogyne javanica cont.
tomatoes 502, 858, 1146, 1152, 1161
Nacobbus aberrans 287
Paratrichodorus, sugarbeet 504
Paratrichodorus christiei, *Hibiscus esculentus* 235
Paratrichodorus minor, *Cynodon dactylon* 844
Paratylenchus hamatus, *Mentha piperita*, USSR 841
plant parasitic nematodes 531, 1139
Agrostic palustris 875
bananas 207
Capsicum frutescens 234
cotton 506
crops, USSR 818
Cynodon dactylon 527
Dioscorea rotundata 238
fruits, France, reviews 1137
fungi 235
grapes 500, 842
France, reviews 1137
integrated pest management 1160
maize 550, 830, 854
orchard crops 500
ornamental plants 1054
Pennisetum americanum 215
pineapples 317
potatoes 804
reviews 860
rice 503
soil, reviews 1156
soyabeans 309, 732, 839
sugarbeet 244
sugarcane 813, 849, 851
Burkina Faso 209, 448
Ivory Coast 448
Trifolium alexandrinum 215
triticale 1130
wheat 866, 947
Pratylenchus, maize 236
Pratylenchus coffeae
Citrus 304
Colocasia esculenta, Japan 455
Pratylenchus hexincisus, maize 806
Pratylenchus penetrans
apples 845
crops 815
potatoes 513
Pseudotsuga menziesii 226
radishes 232
raspberries 528
Pratylenchus scribneri, maize 874
Pratylenchus sefaensis, *Phaseolus lunatus* 499
Pratylenchus thornei, *Cicer arietinum* 878
Pratylenchus vulnus 879
Pratylenchus zeae, sugarcane 850
Radopholus citrophilus, *Citrus* 304
Radopholus similis
bananas, Ivory Coast 519
Citrus 231
reviews, cultural methods 918
Rotylenchulus reniformis
cucumbers 1128
Ipomoea batatas 1044
Scutellonema cavenessi, *Arachis hypogaea* 1142
Scutellonema conicephalum, *Pelargonium graveolens* 512
Trichodorus, sugarbeet 504
Trichodorus christiei, maize 236
Tylenchorhynchus, *Agrostis palustris* 861
Tylenchorhynchus brassicae, aubergines 1129
Tylenchulus semipenetrans 522
Citrus 212, 231, 233, 304, 873
Xiphinema americanum
apples 829
raspberries, USSR 807
Vaccinium corymbosum 852
Xiphinema index 879
Xiphinema rivesi, apples 829
Control methods
catch crops 466
mulching, bananas 207

Convolvulus microphyllus, Meloidogyne javanica, India, new host record 575
Corchorus capsularis
Meloidogyne incognita
dibromochloropropane 867
organic fertilizers 808, 867
Coronocephalus ovilamelatus, n.sp., *Passalus morio,* Brazil 375
Coronocephalus ovipunctatus, n.g., n.sp., *Passalus punctatostriatus,* Brazil 375
Coronostoma dentata, n.sp., Diplopoda, Madagascar 1014
Coronostoma diplopodicola
Cetonia, Madagascar, predation on Thelostomatidae 674
n.comb., for *Aorurus diplopodicola* 674
Coronostoma gautuni, n.sp., *Ophistreptus digitulatus,* Burkina Faso 1014
Corynebacterium
Anguina agrostis
Lolium
Australia
annual rygrass toxicity 964
control 965
Corynespora cassiicola, Heterodera glycines, soyabeans 966
Cosaglenchus, synonym of *Coslenchus* 657
Coslenchus
keys 657
synonymy 657
taxonomy 657
Coslenchus costatus, Japan, morphology 389
Coslenchus japonicus, n.sp., *Orixa japonica,* Japan 389
Cosmos, Meloidogyne, Pakistan, new host record 17
Cosmos bipinnatus, Meloidogyne incognita 1132
Costa Rica, *Meloidogyne salasi,* n.sp., rice 78, 652
Cotton
Hoplolaimus aegypti
Egypt, aldicarb 837
pathogenicity 694
resistance 694
Hoplolaimus columbus, pathogenicity 730
Meloidogyne incognita
development 1076
Fusarium, resistance 1048-1049
Fusarium oxysporum
interactions 615
resistance 1051
Gigaspora margarita, interactions, superphosphate 622
Glomus intraradices, interactions, superphosphate 622
pathogenicity 1076
plant parasitic nematodes, control 506
Pratylenchus sudanensis
Fusarium oxysporum, interactions 976
population dynamics 1121
Counter, plant parasitic nematodes, sugarcane 849
Crataegus, Californidorus cralleyi, n.sp., USA 400
Criconema certesi, n.sp., soil, Chile 667
Criconematidae
key to subfams 993
Spain, geographical distribution 1126
Criconemella
diagnosis emended 993
peaches, USA 136
Criconemella avicenniae, n.sp., *Avicennia marina,* Australia 391
Criconemella brevicauda, n.sp., *Fimbristylis,* Aldabra 69
Criconemella curvata, virgin lands, Australia 592
Criconemella kamali, redescribed 993
Criconemella macrodora, virgin lands, Australia 592
Criconemella multiannulata, to *Macroposthonia douceti,* nom.nov. 290
Criconemella onoensis, virgin lands, Australia 592
Criconemella ornata
Arachis hypogaea, general account 300
ecology, population dynamics 794
Criconemella parvula, Citrus, Pakistan, new geographic record 22
Criconemella pruni
almonds, Pakistan, new geographic record 22
apples, Pakistan, new geographic record 22
Criconemella sphaerocephala, virgin lands, Australia 592
Criconemella xenoplax
Fusarium oxysporum, peaches, interactions 618
Fusarium solani, peaches, interactions 618
peaches
DD 863
fenamiphos 862-863
prophos 862
resistance 120
Criconemellinae, n.subf. 993
Criconemoides eroshenkoi, nom.nov., for *Criconemoides mutabilis* 290
Criconemoides mutabilis, to *Criconemoides eroshenkoi,* nom.nov. 290
Crops
Longidorus elongatus, USSR, population dynamic 242
Meloidogyne
Nigeria, irrigation 25
Pakistan, new host records 585
Meloidogyne artiellia, Mediterranean 327
Meloidogyne incognita, control, rotations 815
plant parasitic nematodes
Africa, maps, distribution 913
Papua New Guinea
pathogenicity 295
surveys 295
Spain, irrigation 28
tropics, resistance, reviews 1041
USSR
natural foci 329, 597
research 818
Pratylenchus penetrans, control, rotations 815
Rotylenchulus reniformis, India 930
Crossonema dracomontanum, to *Syro dracomontanus,* n.g., n.comb. 83
Crossonema eurysoma, morphology 666
Crossonema fimbriatum, India, new geographic record 666
Crossonema fimcivatum, India, morphology 666
Crossonema melanesicum, to *Syro melanesicus,* n.g., n.comb. 83
Crossonema multisquamatum, India, new geographic record 666
Crossonema raskii, n.sp., India 666
Crotalaria, Meloidogyne, Pakistan, new host record 17
Crotalaria lunata, Syro vexillatrix, n.g., n.sp., Papua New Guinea 83
Cryphodera, morphology 412
Cryphodera utahensis, to *Bellodera utahensis,* n.g., n.comb. 412
Cryphoderinae, taxonomy 412
Cryptaphelenchoides propora, n.sp., *Pinus,* China 92
Cuba
Helicotylenchus abunaamai, Citrus, new geographic record 27
Helicotylenchus cavenessi, Citrus, new geographic record 27
Helicotylenchus microcephalus, Citrus, new geographic record 27
Helicotylenchus paraconcavus, Citrus, new geographic record 27
Macroposthonia ornata, Citrus, new geographic record 27
Meloidogyne incognita, tomatoes, development 168
plant parasitic nematodes, *Citrus,* survey 27
Quinisulcius acutus, Citrus, new geographic record 27
Cucumbers
Meloidogyne incognita, Puerto Rico, control 1128
plant parasitic nematodes, USSR 24
Cucumbers *cont.*
Pratylenchoides laticauda, USSR, new geographic record 24
Pseudhalenchus insolitus, n.sp., USSR 82
Rotylenchulus reniformis, Puerto Rico, control 1128
Seinura filicaudata, USSR, new geographic record 24
Tylenchus sandneri, USSR, new geographic record 24
Cucumis melo
Meloidogyne incognita
organic fertilizers 241
plant extracts 241
Cucurbita pepo
Meloidogyne arenaria, organic fertilizers 211
Meloidogyne incognita
fenamiphos 1153
Fusarium oxysporum, interactions 351
Culex quinquefasciatus
Romanomermis culicivorax
floating bioassay container 49
physiology, density dependent sex determination 772
Cultural control
beet 1136
Heterodera schachtii, beet 684
Meloidogyne javanica, tomatoes 1152
nematicidal plants 825
plant parasitic nematodes 565-566, 1164
aubergines 823-824
maize 780
Scutellonema cavenessi, Senegal 817
Cultural methods
catch crops 684
green manures 1164
Heterodera avenae, wheat 865
intercropping 1136
Pratylenchus brachyurus 1116
plant parasitic nematodes, sugarcane 813
tillage, *Pratylenchus hexincisus,* maize 806
Culture techniques
Ditylenchus destructor 248
Ditylenchus dipsaci 250
Helicotylenchus multicinctus 245
Mermithidae 345
nematophagous fungi 197
Neoaplectana carpocapsae 534, 763
Pratylenchus scribneri 1182
Radopholus similis 245
Curaterr (*see* carbofuran)
Cyamopsis tetragonoloba, Meloidogyne incognita, resistance 1026
Cyclamen, Meloidogyne, general account 593
Cylicolaimus magnus, morphology 992
Cylindrotylenchus pini, n.g., n.sp., *Pinus,* China 92
Cymbopogon
Anguina tritici, plant extracts 522
Heterodera avenae, plant extracts 522
Meloidogyne javanica, plant extracts 522
plant parasitic nematodes, India 551
Tylenchulus semipenetrans, plant extracts 522
Cynodon dactylon
Belonolaimus longicaudatus
fenamiphos 844
isazophos 844
prophos 844
Hoplolaimus galeatus
pathogenicity 439
resistance 439
Paratrichodorus minor
fenamiphos 844
isazophos 844
prophos 844
plant parasitic nematodes
nematicides 527
pathogenicity 439
resistance 439
Tylenchorhynchus cynodoni, n.sp., India 384

Cyromazine, *Meloidogyne incognita, Chrysanthemum* 517
Cytisus purgans, *Longidorus carpetanensis,* n.sp., Spain 984
Cytisus scoparius, *Rotylenchus mesorobustus,* n.sp., Spain 1016
Cytology
Caenorhabditis elegans 166, 259, 1096
spermatozoa 1094
Hammerschmidtiella diesingi 335
Leidynema appendiculata 335
marine nematodes 1005
Obainia petteri 367
Cytrolane (*see* mephosfolan)
Czechoslovakia
free living nematodes, soil, soil amendments 1119
Heterodera avenae
grasses 318
oats, ontogenesis 478
wheat, ontogenesis 479
plant parasitic nematodes
forest soils, survey 191
grasses
ecology 495
seasonal dynamics, rainfall 1124
soil
soil amendments 1119
survey 191
Steinernematidae, *Cephalcia abietis,* biological control organisms 960
Dazomet
Ditylenchus dipsaci, strawberries 110
Heterodera glycines, soyabeans, USSR 820
plant parasitic nematodes, wheat 947
Pratylenchus penetrans, radishes 232
DBCP
plant parasitic nematodes, triticale 1130
Scutellonema cavenessi, Arachis hypogaea 1142
DD
Belonolaimus longicaudatus, maize 236
Criconemella xenoplax, peaches 863
Ditylenchus dipsaci
garlic 214
strawberries 214
Hoplolaimus galeatus, maize 236
Longidoridae, grapes 833
Meloidogyne, grapes 833
Meloidogyne incognita, aubergines 218
Meloidogyne javanica, aubergines 218
plant parasitic nematodes, triticale 1130
Pratylenchus, maize 236
Pratylenchus penetrans, radishes 232
Trichodorus christiei, maize 236
Deladeninae, n.subfam. 290
Dendroctonus ponderosa, entomophilic nematodes, *Pinus,* USA 952
Desert soils, free living nematodes, Namibia, ecology 490
Desmodium gangeticus, *Meloidogyne javanica,* India, new host record 575
Desmodium ovalifolium
Meloidogyne javanica, resistance 1033
Pterotylenchus cecidogenus, host parasite relationships 744
Desmodora bulbosa, n.sp., marine sediments, Mexico 380
Desmodora curvispiculum, n.sp., marine sediments, Mexico 380
Desmodora punctata, n.sp., marine sediments, Mexico 380
Development
Caenorhabditis briggsae 150
Caenorhabditis elegans 472, 475, 477, 900, 1188
vulva 1195
Heterodera avenae 483
oats 478
wheat 479
Heterodera schachtii, sugarbeet 777
Heterorhabditis bacteriophora, spermatogenesis 769
Meloidogyne arenaria 652
Meloidogyne exigua 652, 1100-1101
Meloidogyne hapla 652
Meloidogyne incognita 652
Development *cont.*
Meloidogyne incognita cont.
cotton 1076
Meloidogyne javanica, carrots 1034
Monhystera disjuncta 159
Nacobbus aberrans, sugarbeet 727
Panagrellus redivivus 150
Rotylenchulus reniformis 160
tomatoes 476
Dibromochloropropane, *Meloidogyne incognita, Corchorus capsularis* 867
1,3-Dichloropropene
Belonolaimus longicaudatus, maize 520
Globodera rostochiensis, potatoes 838
Hoplolaimus columbus, soyabeans 847
Hoplolaimus galeatus, maize 520
Meloidogyne arenaria, Arachis hypogaea 237
Pratylenchus penetrans, apples 845
Meloidogyne chitwoodi, potatoes 158
Meloidogyne incognita, grapes 843
Meloidogyne javanica, grapes 843
Pratylenchus penetrans, potatoes 513
Digitaria cruciata, *Meloidogyne javanica,* India, new host record 574
Dill, *Meloidogyne javanica,* India, new host record 308
Dimethoate
Meloidogyne incognita, tomatoes 1172
plant parasitic nematodes, triticale 1130
Dioscorea
Meloidogyne incognita, resistance 95
plant parasitic nematodes 907
Dioscorea rotundata
plant parasitic nematodes
aldicarb 238
carbofuran 238
fensulfothion 238
Diospyros chevalieri
Willinema eburnense, n.sp., Ivory Coast 373
Willinema nanum, n.sp., Ivory Coast 373
Diospyrus hispida, *Peltamigratus cerradoensis,* n.sp., Brazil 630
Diplolaimella chitwoodi
nutrition 358
population dynamics 358
Diplolaimelloides bruciei, pollution, bioassays, heavy metals 366
Diplopoda, *Coronostoma dentata,* n.sp., Madagascar 1014
Diptera, *Orthomermis oedobranchus,* Italy, biological control organisms 606
Discocriconemella, virgin lands, Australia 592
Discolaimus agricolus
n.sp.
Citrus, Australia 1009
grapes, Australia 1009
Discolaimus elegans
n.sp.
Citrus, Australia 1009
grapes, Australia 1009
Discolaimus major, Australia, morphology 1009
Discolaimus silvicolus, n.sp., *Eucalyptus,* Australia 1009
Discolaimus texanus, Australia, morphology 1009
Ditylenchus
fruits
USSR
control 214
losses 214
plants
USSR
distribution, host range 33
general account 29, 32
strawberries
USSR
green manures 204
herbicides 204
vegetables
USSR
control 214
losses 214
Vicia faba, German Federal Republic, seed contamination 485
Ditylenchus destructor
bacteria, potatoes, bacterial rot 355
biochemistry, amylase 462
culture techniques 248
morphology 988
potatoes
biochemistry, enzymes 137
pathology, starch hydrolysis 462
resistance 118
glycoalkaloids 117
USSR
control 200, 210
crop rotations 243
dry heat treatment 523
prevalence 427
resistance 427
Solanum
resistance, glycoalkaloids 117
USSR, resistance 100
survival, low temperatures 248
Ditylenchus dipsaci
clovers, resistance 417
garlic
aldicarb 864
Brazil, prevalence 8
carbofuran 864
fenamiphos 864
fensulfothion 864
host carbohydrates 737
oxamyl 864
prophos 864
USSR
DD 214
heterophos 214
prevalence 123
resistance 123-124
karyotypes, polyploidy 537
leeks 15
legumes
France
control 1022
resistance 1022
Lilium henryi, pathology, fasciation, genetics 144
lucerne, resistance 415, 417
narcissus, aldicarb 1175
oats
Belgium
resistance 419
reviews 1024
onions
benfuracarb 1146
host carbohydrates 737
isazophos 1146
mode of infection 945
Poland
aldicarb 1138
oxamyl 1138
triazophos 1138
USSR
prevalence 123
resistance 123
physiology, rehydration 774
plants, USSR, host range 23
potatoes, USSR, heterophos 530
soil, solarization 508
strawberries
USSR
control 110
DD 214
heterophos 214
host range 110
hot water treatment 202
metam sodium 214
nematicides, various 229
Trifolium pratense
culture techniques 250
resistance 107
USSR, general account 138
tulips
aldicarb 532
oxamyl 532
vegetables, resistance 423
Vicia faba, Poland 934
Divisispiculimermis mirus, n.g., n.sp., *Chironomus,* Argentina 636
Divittus impar, n.comb., for *Tylenchorhynchus impar* 999
Dolichodera andinus, n.comb., for *Thecavermiculatus andinus* 412

Dolichodorus aquaticus, n.sp., *Bromus*, Argentina 987
Dolichodorus heterocephalus
Belonolaimus longicaudatus, maize, interactions, pathogenicity 457
maize, pathogenicity, *Belonolaimus longicaudatus* 457
Dolichorhynchus elegans, to *Prodolichorhynchus elegans*, n.g., n.comb. 645
Dorylaimellus directus
morphology 74
taxonomy 74
Dorylaimellus montenegricus
morphology 74
taxonomy 74
Dorylaimellus monticolus
morphology 74
taxonomy 74
Dorylaimidae
keys 560
morphology 560
taxonomy, books 560
Dorylaimus nyongi, to *Prodorylaimus nyongi*, n.comb. 386
Dorylaimus parafecundus, to *Laimydorus parafecundus*, n.comb. 651
Dorylaimus tenuistriatus, to *Laimydorus tenuistriatus*, n.comb. 651
Dracognomus marioni, morphology 986
Dracognomus simplex, morphology 986
Dracograllus antillensis, n.sp., Caribbean Sea 986
Draconema claparedii
marine sediments, Spain 387
morphology 387
Draconematidae, Caribbean Sea 986
Drechmeria coniospora
Heterorhabditis heliothidis, susceptibility 797
Neoaplectana bibionis, susceptibility 797
Neoaplectana carpocapsae, susceptibility 797
Neoaplectana glaseri, susceptibility 797
Neoaplectana intermedia, susceptibility 797
Drepanodorylaimus, synonym of *Prodorylaimus* 386
Drilonematida, taxonomy 290
Drosophila, *Howardula aoronymphium*, USA 340
Dryopteris chrysocoma, *Macroposthonia macrolobata*, India, new host record 377
DS 38697, *Meloidogyne incognita*, *Ipomoea batatas* 805
Dunbaria, *Heterodera cajani*, resistance 549
Earias vittella, *Meloidogyne javanica*, *Hibiscus esculentus*, interactions 980
Eclipta alba, *Meloidogyne incognita* 1132
Ecology
Criconematidae 1126
Criconemella ornata 794
Diplolaimella chitwoodi 358
free living nematodes 192, 194, 492, 802, 1114, 1122
desert soils, Namibia 490
lakes 800
New Zealand 488
pastures, New Zealand 497
soil, Yugoslavia 1120
tillage 1117
Globodera rostochiensis 1092
potatoes 788
Gracilacus yokooi 407
Helicotylenchus dihystera 794
Heterodera avenae 483
barley 1115
cereals 175
German Federal Republic 1167
Raphanus sativus 1115
wheat 494
Heterodera glycines, USA 491, 782
Heterodera schachtii
barley 1115
mustard 445
radishes 445
rape 445
Raphanus sativus 1115
Ecology *cont.*
Hexamermis 409
Hirschmanniella oryzae, cabbages 1105
Longidoridae 1126
Longidorus
apples, Switzerland 933
grapes, Switzerland 933
marine nematodes 159, 189, 199, 360-361, 363-364, 1108
algae, Pacific Ocean 792
France 623, 779
German Federal Republic 356
Gulf of Mexico 61
India 195
marine sediments 173-174, 626
reviews 171
marine soils 172
Netherlands 356
Meloidogyne arenaria
maize 795
soyabeans 795
Meloidogyne incognita 794, 1112
Ipomoea batatas 695
soyabeans 1045, 1074, 1125
Meloidogyne javanica 780
Meloidogyne naasi, France 486
Metachromadora vivipara, Northeast Atlantic, pollution effects 480
Neoaplectana carpocapsae 796, 1084
Neoaplectana glaseri 1084
Paralongidorus australis, rice, Australia 1123
Paratrichodorus christiei
maize 795
soyabeans 795
Paratrichodorus pachydermus 778
Paratylenchus dianthus, carnations 487
Paratylenchus microdorus 481
plant parasitic nematodes 28, 492, 597, 1102, 1114
Cajanus cajan 549
Cicer arietinum 549
forest soils 311, 482
grasses 495
Czechoslovakia 1124
USA 484
maize 441, 798
Paeonia lactiflora 12
pastures, New Zealand 497
reviews, agroecosystems 783
soil 186, 191, 791
USA 484
USSR 181
Sorghum 493
tillage 1117
wheat, USSR 571
Pratylenchus brachyurus, soyabeans 133, 182, 786
Pratylenchus sefaensis 780
Pratylenchus sudanensis
cotton 1121
Psidium guajava 1121
Pungentus, grasses 497
Quinisulcius solani 185
Romanomermis culicivorax 1111
Rotylenchulus reniformis 780, 1112
Trichodorus primitivus 778
Tylenchorhynchus brassicae 1112
Tylenchorhynchus claytoni 794
Xiphinema
apples, Switzerland 933
grapes, Switzerland 933
soil, Spain 793
Xiphinema diversicaudatum 1103
Xiphinema pachtaicum 1103
Ecphyadophoroidinae, n.subfam. 290
Egypt, *Hoplolaimus aegypti*, cotton, aldicarb 837
Eleutherolaimus 766
Embryology
Caenorhabditis elegans 270
Meloidogyne exigua 1101
Enchodelus coomansi, n.sp., *Avicennia marina*, Australia 391
Enchodelus southeyi, n.sp., *Juniperus chinensis*, China 646
Enoploides polysetosus, n.sp., Gulf of Mexico 992
Entomophilic nematodes 534
Amphimallon solstitialis, USSR 604
biological control agents, reviews 39
Entomophilic nematodes *cont.*
Dendroctonus ponderosa, *Pinus*, USA 952
New Zealand, biological control 343
Proteodes carnifex, New Zealand 344
Environmental degradation, *Bursaphelenchus xylophilus*, *Pinus thunbergii* 125
Ephippiodera, synonym of *Bidera* 412
Epicharinematinae, n.subfam., taxonomy 80
Eragrostis curvula, *Afrina wevelli*, n.sp., South Africa 68
Ethylene dibromide
Belonolaimus longicaudatus, maize 520
Heterodera avenae, wheat 142
Heterodera glycines, soyabeans 859
Hoplolaimus galeatus, maize 520
Meloidogyne arenaria, *Arachis hypogaea* 521
Meloidogyne hapla, potatoes 143
Meloidogyne incognita, *Ipomoea batatas* 1044
plant parasitic nematodes, sugarcane 851
Rotylenchulus reniformis, *Ipomoea batatas* 1044
Eucalyptus, *Discolaimus silvicolus*, n.sp., Australia 1009
Eudorylaimus, reproductive system 1008
***Eudorylaimus confusus* Thorne, 1974 *nec* Andrassy, 1959**, to *Eudorylaimus geraldthornei*, nom.nov. 559
Eudorylaimus geraldthornei, nom.nov., for *Eudorylaimus confusus* Thorne, 1974 *nec* Andrassy, 1959 559
Europe
pathotype registration
Globodera pallida, potatoes 672
Globodera rostochiensis, potatoes 672
Eurya emarginata, *Meloidogyne camelliae*, *Trifolium repens*, Japan, new host record, seasonal dynamics 293
Eurya japonica, *Meloidogyne camelliae*, *Trifolium repens*, Japan, new host record, seasonal dynamics 293
Eutylenchinae, n.subfam. 290
Evolution
Caenorhabditis elegans 541
free living nematodes 194
Meloidogyne 896
Pratylenchus crenatus 671
Pratylenchus penetrans 671
Pratylenchus thornei 671
Rhigonematida 368
Fagus
Tylencholaimus constrictus, n.sp., Italy 1011
Tylencholaimus minutus, n.sp., Italy 1011
Feeding behaviour
Heterodera schachtii, juveniles 1097
marine nematodes 363
trophic levels 173
Meloidogyne incognita 162
Mononchida, predation 1079
Pratylenchus agilis 1046
Pratylenchus penetrans, strawberries 470
reviews, plant parasitic nematodes 463
Rotylenchulus borealis 147
Rotylenchulus parvus 147
Fenamiphos
Aphelenchoides fragariae, strawberries 525
Belonolaimus longicaudatus
Cynodon dactylon 844
Hibiscus esculentus 235
maize 520
USA 235
Criconemella xenoplax, peaches 862-863
determination technique 853
Ditylenchus dipsaci, garlic 864
Heterodera glycines, soyabeans 859
Hoplolaimus galeatus
Chrysanthemum 517
Hibiscus esculentus 235
maize 520

Fenamiphos *cont.*
Hoplolaimus galeatus cont.
maize *cont.*
USA 235
Meloidogyne arenaria, Arachis hypogaea 521
Meloidogyne hapla, Arachis hypogaea 855
Meloidogyne incognita 879
Chrysanthemum 517
Cucurbita pepo 1153
grapes 843
Hibiscus esculentus 235
maize 1153
tobacco 816
Meloidogyne javanica
grapes 843, 1133
tobacco 816
Paratrichodorus christiei
Hibiscus esculentus 235
maize, USA 235
Paratrichodorus minor, Cynodon dactylon 844
pastures, nitrogen fixation 870
plant parasitic nematodes
Agrostis palustris 875
grapes 842
maize 830
pineapples 317
Pratylenchus penetrans, Pseudotsuga menziesii 226
Pratylenchus vulnus 879
Radopholus similis, bananas 519
soil
biochemistry 239
persistence 1157
toxicity, strawberries 525
Tylenchulus semipenetrans, Citrus 212
Xiphinema americanum, Vaccinium corymbosum 852
Xiphinema index 879
Fensulfothion
Ditylenchus dipsaci, garlic 864
Meloidogyne incognita, peas 1169
plant parasitic nematodes
Dioscorea rotundata 238
triticale 1130
Pratylenchus thornei, Cicer arietinum 878
Ferns, *Axonchium (Axonchium) khasianum*, n.sp., India 398
***Festuca arundinacea, Meloidogyne microtyla*,** pathogenicity 745
Festuca rubra
Meloidogyne microtyla
Canada, new host record 589
pathogenicity 745
Ficus carica, Heterodera fici 587
Ficus elastica, Heterodera fici 587
Filenchus afghanicus, n.comb., for *Tylenchus afghanicus* 670
Filenchus criniformicaudatus, n.comb., for *Lelenchus criniformicaudatus* 670
Filenchus quartus, n.comb., for *Tylenchus quartus* 670
Filenchus sheri, n.comb., for *Tylenchus sheri* 670
Filenchus spiculatus, n.sp., peas, India 670
Filenchus striatus, n.comb., for *Tylenchus striatus* 670
Filipjeva, revised 631
Filipjeva crucis, n.sp., Antarctica 631
Filitonchoides thiobioticus, n.g., n.sp., marine sediments, Mexico 380
Fimbristylis, Criconemella brevicauda, n.sp., Aldabra 69
Finland
Heterodera schachtii
barley, rotations 872
lucerne, rotations 872
rye, rotations 872
sugarbeet, population dynamics 872
Vicia faba, rotations 872
plant parasitic nematodes, plants, quarantine 582
Flemingia, Heterodera cajani, resistance 549
FMC 67825
Meloidogyne incognita, tobacco 831
plant parasitic nematodes, maize 830
Pratylenchus scribneri, maize 874
Forest soil
Sectonema anisonchium, n.sp., Colombia 403
Sectonema macbethi, Colombia 403
Sectonema mucrodens, n.sp., Colombia 403
Sectonema truxum, n.sp., Colombia 403
Forest soils
free living nematodes
population dynamics, temperature 194
USSR, seasonal variations 588
Mitranema mitrum, n.g.,n.sp., Nigeria 290
plant parasitic nematodes
Czechoslovakia, survey 191
USA, ecology 311
Yugoslavia, ecology 482
Forest trees
Bursaphelenchus xylophilus, moult inducing factor 429
Cephalenchus nemoralis, n.sp., Japan 658
Meloidogyne, Bulgaria, control 501
Miculenchus elegans, n.sp., USA 399
plant parasitic nematodes
India 314
USA 21
Xiphinema, Japan, morphology 402
Xiphinema chambersi, Xiphinema simillimum, Japan, new geographic record 402
France
Ditylenchus dipsaci
legumes
control 1022
resistance 1022
free living nematodes, peat soils 781
Globodera pallida, potatoes, resistance, reviews 1067
Globodera rostochiensis, potatoes, resistance, reviews 1067
Heterodera avenae
cereals
pathogenicity, polymorphism 1071
pathotypes 458
Graminaea, pathogenicity, polymorphism 1071
Incurvinema helicoides, n.g., n.sp., *Rhadinopsylla pentacantha* 376
Longidoridae, distribution maps 914
marine nematodes
ecology, community diversity 779
marine soils, survey 172
population density variations, substrate 623
population dynamics 360-361
survey 1108
Meloidogyne naasi, ecology, frost 486
plant parasitic nematodes
fruits, control, reviews 1137
grapes, control, reviews 1137
Prodorylaimus dalmassoi, n.sp., soil 386
Trichodoridae, distribution maps 914
Xiphinemidae, distribution maps 914
Free living nematodes
aquatic plants, USA, survey 302
bibliographies 547
biochemistry, pheromones, reviews 759
desert soils, Namibia, ecology 490
ecology, tillage 1117
forest soils
population dynamics, temperature 194
USSR, seasonal variations 588
fresh water, USSR 1107
freshwater
USSR 178, 187, 196, 1109
ecology 800
marine sands, quantitative extraction 249
mosses, Italy, lead pollution 802
pastures, New Zealand, seasonal dynamics 497
peat soils, France 781
Poland, reviews 567
river water, Australia, pollution indicators 1104
Free living nematodes *cont.*
soil
Czechoslovakia, soil amendments 1119
fertilizers, sewage sludge 1114
herbicides 192
Pinus radiata, New Zealand 488
Spain, distribution, depth 481
USA
ecology 492
prevalence, desert soils 1110
Yugoslavia, ecology 1120
techniques, toxicity testing 882
water
German Federal Republic, coenoses 1122
India, pollution 1113
wheat, USSR, monocultures, seasonal variations 571

Freshwater
free living nematodes
USSR 178, 187, 196, 1109, **1107**
ecology 800
Fruit trees
Arthrobotrys dendroides, n.sp., Malaysia 183
plant parasitic nematodes
Bulgaria, prevalence 299
soil sickness 949
Fruits
Ditylenchus
USSR
control 214
losses 214
plant parasitic nematodes, France, control, reviews 1137
Fungi
Aphelenchoides ritzemabosi, new host records 576
Globodera, interactions 188
Globodera pallida, potatoes, interactions 970
Globodera rostochiensis, potatoes, interactions 970
Helicotylenchus dihystera
Sorghum
Colombia, associations 612
USA, associations 612
Heterodera
Sorghum
Colombia, associations 612
USA, associations 612
Heterodera avenae, cereals, German Federal Republic 1168
Meloidogyne, interactions 188
Meloidogyne hapla, lucerne, interactions 613
Meloidogyne incognita, Hyoscymus cuticus, India 551
plant parasitic nematodes, barley, Canada 18
Pratylenchus zeae
Sorghum
Colombia, associations 612
USA, associations 612
Quinisulcius acutus
Sorghum
Colombia, associations 612
USA, associations 612
Fungiotonchium bifurcatum, n.g.,n.comb. 290
Furadan (*see* carbofuran)
Fusarium
Meloidogyne, interactions 620
Meloidogyne incognita, cotton, resistance 1048-1049
Fusarium oxysporum
Criconemella xenoplax, peaches, interactions 618
Meloidogyne incognita
Albizia julibrissin, resistance 430
cotton
interactions 615
resistance 1051
Cucurbita pepo, interactions 351
Meloidogyne javanica
Albizia julibrissin, resistance 430
Cicer arietinum, interactions 621
Vigna unguiculata, resistance 718

Fusarium oxysporum *cont.*
Pratylenchus penetrans, lucerne, interactions 54
Pratylenchus sudanensis, cotton, interactions 976
Fusarium solani, *Criconemella xenoplax*, peaches, interactions 618
Galleria mellonella
Heterorhabditis heliothidis, virulence, temperature 601
Neoaplectana carpocapsae
Bacillus subtilis, interactions 36
infectivity 1084
virulence, temperature 601
Xenorhabdus nematophilus
interactions 36
pathogenicity 967
Neoaplectana glaseri, infectivity 1084
Neoaplectana intermedia, n.sp., USA 663
Gambusia affinis, toxicity, carbofuran 1149
Gammarinema ampullocauda, n.comb., for *Monhystera ampullocauda* 996
Gammarinema gammari
Gammarus, Baltic Sea 996
morphology 996
Gammarinema ligiae
Ligia oceanica, North Sea 996
morphology 996
Gammarus, *Gammarinema gammari*, Baltic Sea 996
Garlic
Ditylenchus dipsaci
aldicarb 864
Brazil, prevalence 8
carbofuran 864
fenamiphos 864
fensulfothion 864
host carbohydrates 737
oxamyl 864
prophos 864
USSR
DD 214
heterophos 214
prevalence 123
resistance 123-124
plant parasitic nematodes, *Pseudomonas fluorescens* 611
Gastromermis mesostoma, n.sp., *Simulium japonicum*, Japan 665
Genetics
Bursaphelenchus xylophilus 536
Caenorhabditis elegans 254-257, 259, 261, 263-267, 269, 271-273, 465, 472, 538-539, 541, 544, 895, 898-903, 1187, 1196
reviews, cell lineage 897
Ditylenchus dipsaci 537
Heterodera glycines 113
Meloidogyne 883
Meloidogyne nataliei 896
Radopholus similis 268
Geographical distribution
Bursaphelenchus xylophilus, *Pinus* 921
Criconematidae, Spain 1126
Helicotylenchus multicinctus, bananas 919
Longidoridae, Spain 1126
Xiphinema diversicaudatum, Spain 1103
Xiphinema italiae, Spain 1127
Xiphinema pachtaicum, Spain 1103
Xiphinema turcicum, Spain 1127
German Democratic Republic
Heterodera avenae, cereals, population dynamics 175
Heterodera schachtii
beet, catch crops, *Raphanus sativus* 684
mustard, resistance 445
radishes, resistance 445
rape, resistance 445
sugarbeet, crop rotation 1144
plant parasitic nematodes, grasses, sward damage 140
German Federal Republic
Ditylenchus, *Vicia faba*, seed contamination 485
free living nematodes, water, coenoses 1122
Globodera, testing techniques 1178
German Federal Republic *cont.*
Globodera pallida
control 1134
potatoes, control, bog soils 1170
Globodera rostochiensis 9
control 1134
potatoes, resistance testing 1047
Solanum, resistance testing 1047
weeds, host list 301
Heterodera, testing techniques 1178
Heterodera avenae 9
cereals, population levels 1167
control 1134
fungi, cereals 1168
rape, population levels 1167
weeds, host list 301
Heterodera schachtii 9
beet
control
crop rotation, nematicide 1135
intercropping 1136
control 1134
radishes, pathotypes 938
weeds
host list 301
listed 924
marine nematodes, ecology, feeding behaviour 356
plant parasitic nematodes, bibliographies 1197
Xiphinema diversicaudatum, Arabis mosaic virus, grapes 975
Xiphinema index, grapevine fanleaf virus, grapes 975
Xiphinema vuittenezi, grapevine fanleaf virus, grapes 975
Ghana, *Isomermis lairdi*, *Simulium damnosum*, reduction in *Onchocerca volvulus* transmission 348
Gigaspora margarita, *Meloidogyne incognita*, cotton, interactions, superphosphate 622
Ginger, *Meloidogyne incognita*, *Pseudomonas solanacearum*, interactions 977
Glaber geopetiti, n.comb., for *Artigasia geopetiti* 375
Globodera
fungi, interactions 188
pathotypes, identification techniques 660
potatoes, resistance 699
research reports 905, 1198
soil
detection technique 881
techniques, detection 1178
techniques
identification, pathotypes 1178
testing, resistance 1178
Globodera chaubattia, synonymy 412
Globodera hypolysi, n.sp., *Artemisia princeps*, Japan 393
Globodera pallida
biochemistry
cuticular saccharides 758
proteins 890
fungi, potatoes, interactions 970
German Federal Republic, control 1134
pathotypes
enzyme analysis 155
identification, isoelectric focusing 890
identification techniques 246
potatoes 1056
aldicarb 877
carbofuran, bog soils 1170
Europe, pathotype registration 672
France, resistance, reviews 1067
German Federal Republic, control, bog soils 1170
oxamyl, bog soils 1170
pathogenicity, water stress 1056
prophos, bog soils 1170
resistance 103, 432, 679, 877
Sweden, pathotypes 660, 703
UK, resistance, pathotypes 717
techniques, DNA extraction 1180
tomatoes, pathogenicity 746
Globodera rostochiensis
biochemistry
cuticular saccharides 758
proteins 890
extraction techniques 1181
fungi, potatoes, interactions 970
German Federal Republic 9
control 1134
hatching, egg shell calcium 153
hatching factors 1092
diapause 1083
lipid reserves 1095
pathotypes
enzyme analysis 155
identification, isoelectric focusing 890
identification techniques 246
population dynamics 787
potatoes 1056
aldicarb 838, 877
biochemistry, enzymes 137
control, resistant varieties 1021
1,3-dichloropropene 838
Europe, pathotype registration 672
France, resistance, reviews 1067
German Federal Republic, resistance testing 1047
histology 743
oxamyl 838
Pakistan, surveys 580
pathogenicity, water stress 449, 1056-1057
Poland, control, resistant varieties 1042
population dynamics 788
resistance 789
resistance 118, 432, 434, 438, 700, 720, 877, 1184
solarization 838
Sweden, pathotypes 660, 703
UK, resistance, pathotypes 717
USSR, control 515, 819
Solanum, German Federal Republic, resistance testing 1047
techniques, DNA extraction 1180
tomatoes, resistance 111
weeds, German Federal Republic, host list 301
Globodera solanacearum, tobacco, population dynamics 1027
Glomerinema fanonyi, n.sp., Sphaeroteroidea, Madagascar 411
Glomerinema grandisperma, n.sp., Sphaeroteroidea, Madagascar 411
Glomerinema ritteri, n.sp., Sphaeroteroidea, Madagascar 411
Glomus fasciculatum
Heterodera glycines, biological control agent 177
Meloidogyne hapla, onions, interactions 57
Glomus fascoculatum, *Meloidogyne incognita*, tomatoes, interactions 979
Glomus intraradices, *Meloidogyne incognita*, cotton, interactions, superphosphate 622
Glossina, *Hexamermis glossinae*, pathogenicity 44
Glyptotendipes gripekoveni, Mermithidae, Poland 38
Glyptotendipes polytomus, USSR, *Hydromermis borokii*, morphology 649
Goodeyella minutissima, n.g.,n.comb. 290
Gracilacus yokooi, n.sp., mulberries, Japan 407
Graminaea, *Heterodera avenae*, France, pathogenicity, polymorphism 1071
Grapes
Discolaimus agricolus, n.sp., Australia 1009
Discolaimus elegans, n.sp., Australia 1009
Longidorus, Switzerland, prevalence, distribution 933
Meloidogyne incognita
aldicarb 843
carbofuran 843
1,3-dichloropropene 843
fenamiphos 843
oxamyl 843

Grapes *cont.*
Meloidogyne incognita cont.
resistance 104
Meloidogyne javanica
aldicarb 843
carbofuran 843
control
fenamiphos 1133
hot water treatment 1133
1,3-dichloropropene 843
fenamiphos 843
Iraq 321
oxamyl 843
plant parasitic nematodes
control 842
nematicides 500
resistance 500
France, control, reviews 1137
India, reviews 128
Iraq 321
reviews 5
USSR, general account 833
Yugoslavia 926
Rotylenchus pakistanensis, n.sp., Pakistan 1000
Xiphinema
Algeria, prevalence 306
Switzerland, prevalence, distribution 933
Yugoslavia 926
Xiphinema americanum, peach rosette mosaic virus, transmission 973
Xiphinema barbercheckae, n.sp., South Africa 634
Xiphinema bolandium, n.sp., South Africa 634
Xiphinema capense, n.sp., South Africa 634
Xiphinema diversicaudatum, Arabis mosaic virus, German Federal Republic 975
Xiphinema index
grapevine fanleaf virus, German Federal Republic 975
USSR, prevalence, virus infection 60
Xiphinema vuittenezi, grapevine fanleaf virus, German Federal Republic 975
Grapevine fanleaf virus
Xiphinema index, grapes, German Federal Republic 975
Xiphinema vuittenezi, grapes, German Federal Republic 975
Grasses
Heterodera avenae, Czechoslovakia 318
Heterodera trifolii, New Zealand, survey 939
Meloidogyne, New Zealand, survey 939
Peltamigratus raskii, n.sp., Brazil 630
plant parasitic nematodes
Czechoslovakia
ecology 495
seasonal dynamics, rainfall 1124
German Democratic Republic, sward damage 140
USA, vertical distribution 484
USSR, general account 591
Pungentus, ecology, nitrogen 497
Sclerolabia camerunensia, n.g., n.sp., Cameroon 374
Willinema laopangense, n.sp., Cameroon 373
Willinema paraparvum, n.sp., Cameroon 373
Xiphinema dolosum, n.sp., Nigeria 370
Xiphinema majus, n.sp., Nigeria 370
Greece, *Longidorus proximus*, artichokes, morphology, males 1006
Green manures, *Ditylenchus*, strawberries, USSR 204
Greenhouses, *Helicotylenchus*, ornamental plants, USSR, new geographic records, losses 928
Guadeloupe, marine nematodes, beach soils 189
Guilielma speciosa, ***Peltamigratus paraensis***, n.sp., Brazil 630
Gulf of Mexico
Calyptronema pulchrum, n.sp. 992
Gulf of Mexico *cont.*
Enoploides polysetosus, n.sp. 992
Leptosomatum woodsi, n.sp. 992
marine nematodes, ecology 61
Symplocostoma brevispiculum, n.sp. 992
Halalaimus, Antarctica 631
Halichoanolaimus, morphology, intestine 643
Halichoanolaimus macramphis, n.sp., Atlantic Ocean 643
Halichoanolaimus macrophallus, n.sp., Atlantic Ocean 643
Halichoanolaimus minor, Atlantic Ocean, morphology 643
Haliplectus salicornius, n.sp., Argentina 1015
Haloxylon aphyllum, ***Meloidogyne turkestanica***, n.sp., USSR 88
Haloxylon persicum, ***Meloidogyne turkestanica***, n.sp., USSR 88
Hammerschmidtiella diesingi
morphology, surface topography 676
oogenesis, karyotype 335
Harposporium, soil, USSR 227
Hatching factors
Globodera rostochiensis 153, 1092
diapause 1083
lipid reserves 1095
Heterodera avenae, wheat 494
Heterodera glycines 474
Heterodera schachtii, egg-shell calcium 1082
Meloidogyne artiellia, temperature 467
Meloidogyne incognita 1078
Meloidogyne mali 773
Rotylenchulus reniformis 761
Hawaii
plant parasitic nematodes, pineapples, control 317
Rotylenchulus reniformis, pineapples, control 317
Helianthus annuus
Helicotylenchus dihystera, resistance 1020
Helicotylenchus pseudorobustus, resistance 1020
Heterodera glycines, resistance 1020
Meloidogyne arenaria, resistance 1020
Meloidogyne hapla, resistance 1020
Meloidogyne incognita, resistance 114, 1020
Meloidogyne javanica, resistance 114, 1020
Pratylenchus alleni, resistance 1020
Pratylenchus scribneri, resistance 1020
Rotylenchulus reniformis, resistance 114
Helicotylenchus
bananas, India, survey 324
ornamental plants, greenhouses, USSR, new geographic records, losses 928
Helicotylenchus abunaamai, *Citrus*, Cuba, new geographic record 27
Helicotylenchus borinquensis, *Pteris vittata*, India, new host/geographic record 377
Helicotylenchus cavenessi, *Citrus*, Cuba, new geographic record 27
Helicotylenchus dihystera
amoebae, predation 509
ecology, population dynamics 794
fungi
Sorghum
Colombia, associations 612
USA, associations 612
Helianthus annuus, resistance 1020
lucerne, seedling emergence 146
Pelargonium graveolens
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512
Psidium guajava, South Africa 748
soil, extraction techniques 893
Helicotylenchus erythrinae
Aldabra 69
maize, host parasite interactions 577
morphology 69
Helicotylenchus exallus, Pakistan, new geographic record 79
Helicotylenchus macronatus, Pakistan, new geographic record 79
Helicotylenchus microcephalus
Citrus, Cuba, new geographic record 27
Meloidogyne javanica, *Pratylenchus sefaensis*, *Phaseolus lunatus*, interactions, effect of rainfall 499
Phaseolus lunatus
aldicarb 499
carbofuran 499
isazophos 499
new host record 499
oxamyl 499
Piper betle, India 927
Helicotylenchus multicinctus
banana fruit callus 245
bananas, reviews 919
Helicotylenchus obliquus, n.sp., mangoes, Pakistan 1000
Helicotylenchus paraconcavus, *Citrus*, Cuba, new geographic record 27
Helicotylenchus pseudorobustus
Helianthus annuus, resistance 1020
soyabeans, interactions 732
Helicotylenchus ryzhikovi, n.sp., *Pinus sylvestris*, USSR 650
Helicotylenchus varicaudatus, *Pteris vittata*, India, new geographic record 377
Heliothis armigera
Hexamermis, India 600
Ovomermis albicans, India, new host record, prevalence 333
Heliothis assulta, *Ovomermis albicans*, India, new host record, prevalence 333
Heliothis peltigera, *Ovomermis albicans*, India, new host record, prevalence 333
Heliothis zea, *Neoaplectana carpocapsae*, USA, biological control organisms 598
Hemicriconemoides cocophillus
Aldabra 69
morphology 69
Hemicriconemoides litchi, morphometry, differential characters 989
Hemicriconemoides mangiferae
coconuts
aldicarb 1155
carbofuran 1155
Hemicycliophora
morphology 77
synonymy 77
taxonomy 77
ultrastructure, head 77
Hemicycliophora guptai, n.sp, *Adiantum venustum*, India 377
Hemicycliophora macrodorata, n.sp., soil, Chile 667
Hemicycliophora nyanzae, validated 77
Hemicycliophora salicis, synonym of *Hemicycliophora thienemanni* 77
Hemicycliophora thienemanni, synonymy 77
Herbicides
free living nematodes, soil 192, 1119
Paratylenchus hamatus, *Mentha piperita*, USSR 841
plant parasitic nematodes, soil 1119
Heteroanguina caricis, n.comb., for *Anguina caricis* 633
Heteroanguina ferulae, n.comb., for *Subanguina ferulae* 633
Heteroanguina polygoni, n.comb., for *Subanguina polygoni* 633
Heterodera
fungi
Sorghum
Colombia, associations 612
USA, associations 612
keys 412
research reports 905
soil, techniques, detection 1178
techniques
identification, pathotypes 1178
testing, resistance 1178
Heterodera acnidae, to *Cactodera acnidae*, n.comb. 412

Heterodera avenae
barley
pathology, manganese deficiency 747
population dynamics 1115
resistance 105
larval penetration 425
root invasion 456
cereals
France
pathogenicity, polymorphism 1071
pathotypes 458
German Democratic Republic, population dynamics 175
German Federal Republic, population levels 1167
resistance 713
Cymbopogon, plant extracts 522
cyst formation, temperature 483
fungi, cereals, German Federal Republic 1168
German Federal Republic 9
control 1134
Graminaea, France, pathogenicity, polymorphism 1071
grasses, Czechoslovakia 318
maize, Poland, prevalence 935
Nematophthora gynophila, cereals, interactions 219
oats
Belgium
resistance 419
reviews 1024
Czechoslovakia, ontogenesis 478
India, new record 946
pathogenicity, resistance 712
rape, German Federal Republic, population levels 1167
Raphanus sativus, population dynamics 1115
Verticillium chlamydosporium, cereals, interactions 219
weeds, German Federal Republic, host list 301
wheat
aldicarb 810
biological control, *Verticillium chlamydosporium* 835
carbofuran 810
chloethocarb 810
cultural methods 865
Czechoslovakia, ontogenesis 479
ethylene dibromide 142
nemadi 810
oxamyl 810
pathogenicity 142
Spain, cyst hatching 494
Sweden, rotations 516
Heterodera cajani
Atylosia, resistance 549
Cajanus cajan, triazophos 1162
Dunbaria, resistance 549
Flemingia, resistance 549
Rhynchosia, resistance 549
Heterodera carotae
carrots
benfuracarb 1146
isazophos 1146
methyl isothiocyanate 1146
soil, solarization 508
Heterodera ciceri
Cicer arietinum
infectivity 1086
life history 1099
pathogenicity 1099
hatching 1086
n.sp., *Cicer arietinum*, Syria 410
Heterodera fici
Ficus carica 587
Ficus elastica 587
host range 587
Heterodera glycines
chemotaxonomy, geographical isolates 71
Cleome spinosa, resistance 1040
Corynespora cassiicola, soyabeans 966
Glomus fasciculatum, biological control agent 177
hatching factors 474
Helianthus annuus, resistance 1020
Heterodera glycines cont.
Lespedeza striata, resistance 1040
pheromones
bioassay techniques 886
fractionation 752
Phialophora gregata, soyabeans 966
sampling techniques 885
soyabeans
aldicarb 814, 827, 848
breedings techniques 884
carbofuran 827
China, resistance 428
ethylene dibromide 859
fenamiphos 859
interactions 732
Japan
pathology 738
prevalence 738
population dynamics 491, 1027
resistance 113, 443, 677-678, 682, 686, 1018, 1040
resistance testing 1030
UC 70480 827
UC 70667 827
USA, geographical isolates 639, 724, 757
USSR, general account 820
USA, population dynamics 782
Heterodera goettingiana, peas, life history 1098
Heterodera mali, synonym of *Globodera chaubattia* 412
Heterodera medicaginis, lucerne, USSR, losses 723
Heterodera rostochiensis, potatoes, Hungary, resistance 710
Heterodera rumicis, synonym of *Heterodera trifolii* 412
Heterodera schachtii
barley
Finland, rotations 872
population dynamics 1115
beet 1136
German Democratic Republic, catch crops, *Raphanus sativus* 684
German Federal Republic
control
crop rotation, nematicide 1135
intercropping 1136
resistance 418
reviews 1023
Beta vulgaris, resistance 1037
Brassica napus oleifera, hatching 466
cysts, biochemistry, amino acids 741
German Federal Republic 9
control 1134
hatching factors, egg-shell calcium 1082
juveniles, feeding behaviour 1097
lucerne, Finland, rotations 872
Meloidogyne hapla, tomatoes, interactions, temperature 157
morphology, subcrystalline layer 414
mustard
control, resistant varieties 1136
German Democratic Republic, resistance 445
Nacobbus aberrans, sugarbeet, interactions 727
radishes
control, resistant varieties 1136
German Democratic Republic, resistance 445
German Federal Republic, pathotypes 938
rape, German Democratic Republic, resistance 445
Raphanus sativus
hatching 466
population dynamics 1115
resistance 112, 684
reviews 1023
trap crops 221
rye, Finland, rotations 872
Sinapis alba
resistance 112
reviews 1023
sugarbeet
development 777
Heterodera schachtii cont.
sugarbeet *cont.*
Finland, population dynamics 872
German Democratic Republic, crop rotation 1144
green manure 206
mathematical models 777
migration 176
trap crops 221
USA, geographical distribution 498
USSR
control 840
pathology 741
Vicia faba, Finland, rotations 872
weeds
German Federal Republic
host list 301
listed 924
Heterodera scleranthi, synonym of *Heterodera trifolii* 412
Heterodera trifolii
grasses, New Zealand, survey 939
synonymy 412
Trifolium, New Zealand, survey 939
Heterodera ustinova, synonym of *Bidera avenae* 412
Heterodera zea, Prunus amygdalus, Pakistan, new host record 943
Heteroderidae
keys 412
plants, USSR, check list, Tajik SSR 937
revised 412
Heteroderinae, keys 412
Heteromorphotylenchinae, n.subfam. 290
Heterophos
Ditylenchus dipsaci
garlic 214
potatoes 530
strawberries 214
Heterorhabditis
Lucilia cuprina, pathogenicity 161
soil, infectivity, temperature 161
Xenorhabdus, Pseudaletia unipuncta, interactions 354
Heterorhabditis bacteriophora
Cephalcia falleni, biological control 45
development, spermatogenesis 769
insects
biological control 45
susceptibility 959
sperm, behaviour 990
ultrastructure, reproductive tract 990
Heterorhabditis heliothidis
Alphitobius diaperinus, pathogenicity 602
Beauveria bassiana, Sitona discoideus, New Zealand, biological control organisms 953
Drechmeria coniospora, susceptibility 797
Galleria mellonella, virulence, temperature 601
Ligyrus subtropicus, biological control agent 46
Otiorhynchus rugifrons, Switzerland, biological control organisms 605
Otiorhynchus sulcatus
biological control agent 37
Switzerland, biological control organisms 605
Spodoptera exigua, biological control organisms, encapsulation, calcium alginate 341
Heterotylenchinae, n.subfam. 290
Heth clunyi, n.sp., *Rhinocricus bernardinensis*, Paraguay 627
Heth magnavulvaris, n.sp., *Rhinocricus bernardinensis*, Paraguay 627
Heth parartigasi, n.sp., *Rhinocricus bernardinensis*, Paraguay 627
Hexamermis
Achaea janata, India, prevalence 333
ecology 409
Heliothis armigera, India 600
Lepidoptera, India, prevalence 333
morphology 409
taxonomy 409
***Hexamermis dactylocercus* n.sp.**, *Aeneolamia varia*, Venezuela 86

Hexamermis glossinae, Glossina, pathogenicity 44
Hibiscus cannabinus
Meloidogyne incognita, China, prevalence 950
plant parasitic nematodes, population dynamics, irrigation 784
Hibiscus esculentus
Belonolaimus longicaudatus
Arthrobotrys amerospora 235
fenamiphos 235
Hoplolaimus galeatus
Arthrobotrys amerospora 235
fenamiphos 235
Meloidogyne incognita
Arthrobotrys amerospora 235
fenamiphos 235
pathogenicity 722
resistance 722
Meloidogyne javanica, Earias vittella, interactions 980
Paratrichodorus christiei
Arthrobotrys amerospora 235
fenamiphos 235
Hirschmanniella gracilis, rice, carbofuran 201
Hirschmanniella mucronata
rice
carbosulfan 857, 1163
isofenphos 857, 1163
phosphomidon 857
Hirschmanniella oryzae
cabbages
attraction 464
root attraction 1105
carbofuran 751
carrots, attraction 464
onions, attraction 464
physiology 751
radishes, attraction 464
Hirschmanniella spinicaudata
morphology 65
ultrastructure 65
Histology
Globodera rostochiensis, potatoes 743
Longidorus profundorum
barley 446
Lens 446
Vicia sativa 446
wheat 446
Meloidogyne incognita, bananas 148
Paralongidorus buchae, tomatoes 447
Rotylenchulus reniformis, bananas 148
Hoplolaimus
Agrostis palustris, Triumph 861
morphology, tail 6
Hoplolaimus aegypti
cotton
Egypt, aldicarb 837
pathogenicity 694
resistance 694
Hoplolaimus columbus
Arachis hypogaea, pathogenicity 729
cotton, pathogenicity 730
Sesamum indicum, pathogenicity 729
soyabeans
1,3-dichloropropene 847
pathogenicity 730
Hoplolaimus galeatus
Chrysanthemum, fenamiphos 517
Cynodon dactylon
pathogenicity 439
resistance 439
Hibiscus esculentus
Arthrobotrys amerospora 235
fenamiphos 235
maize
aldoxycarb 520
carbofuran 236, 520
DD 236
1,3-dichloropropene 520
ethylene dibromide 520
fenamiphos 520
host parasite interactions 577
metham sodium 520
oxamyl 520
prophos 520
subsoiling 236
terbufos 520
USA
Arthrobotrys amerospora 235
Hoplolaimus galeatus *cont.*
maize *cont.*
USA *cont.*
fenamiphos 235
Hoplorhynchus, synonym of *Pratylenchoides* 997
Hoplotylus montanus, n.sp., *Abies,* Japan 388
Hops
Longidoridae, Belgium, virus transmission 619
Trichodoridae, Belgium, virus transmission 619
Host parasite relationships
Ditylenchus destructor, potatoes 137
evolution 693
Globodera rostochiensis, potatoes 137
Helicotylenchus erythrinae, maize 577
Heterodera avenae, barley 456
Heterodera schachtii, sugarbeet 741
Hoplolaimus galeatus, maize 577
Longidorus breviannulatus, maize 577
Meloidogyne 936
Meloidogyne arenaria, soyabeans 179
Meloidogyne chitwoodi, potatoes 158
Meloidogyne incognita, soyabeans 179
Pratylenchus scribneri, maize 577
Pterotylenchus cecidogenus, Desmodium ovalifolium 744
reviews 768
Tylenchorhynchus claytoni, maize 577
Xiphinema americanum, maize 577
Host specificity
Ditylenchus dipsaci 23, 110
Subanguina picridis 675
Hostathion (*see* triazophos)
Howardula aoronymphium
Amanita, USA 340
Drosophila, USA 340
Howardula aptini
apud Nickle & Wood, 1964, to *Thripinema nicklewoodi,* nom.nov. 290
apud Reddy, Nickle & Rao, 1982, to *Thripinema reniraoi,* n.g.,nom.nov. 290
Hungary
Heterodera rostochiensis, potatoes, resistance 710
Meloidogyne hapla, Paeonia lactiflora 12
plant parasitic nematodes, *Paeonia lactiflora,* new geographic records 12
Hydromermis borokii
Chironomus plumosus, USSR, morphology 649
Glyptotendipes polytomus, USSR, morphology 649
Hydroxytrematone, *Bursaphelenchus xylophilus* 826
Hylobius abietis, *Neoaplectana carpocapsae,* Sweden, biological control agent 346
Hylonema, morphology 412
Hyoscymus cuticus, *Meloidogyne incognita,* fungi, India 551
Hypsoperine (Spartonema), n.subg. 290
Hystrignathinae
keys 375
taxonomy 375
Hystrignathus metropolitanus, n.sp., *Passalus punctatostriatus,* Brazil 375
Hystrignathus papillophorus, n.sp., *Passalus morio,* Brazil 375
Hystrignathus paulistanus, n.sp., *Passalus punctatostriatus,* Brazil 375
Impatiens balsamina
Meloidogyne, India 925
Meloidogyne incognita, pathogenicity 726
Imperata cylindrica, *Merlinius acuminatus,* n.sp., Japan 1001
Incurvinema helicoides, n.g., n.sp., *Rhadinopsylla pentacantha,* France 376
India
Agamermis, Lymantria obfuscata 599
Aglenchus andrassyi, n.sp., pears 670
Anguina tritici, wheat, surveys 940
Axonchium (Axonchium) khasianum, n.sp., ferns 398
India *cont.*
Axonchium (Axonchium) neoeletum, n.sp., *Sorghum vulgare* 398
Axonchium (Axonchium) parasaccatum, n.sp., *Terminalia myriocarpa* 398
Axonchium (Axonchium) phukani, n.sp., *Sorghum vulgare* 398
Crossonema fimbriatum, new geographic record 666
Crossonema fimcivatum, morphology 666
Crossonema multisquamatum, new geographic record 666
Crossonema raskii, n.sp. 666
Filenchus spiculatus, n.sp., peas 670
free living nematodes, water, pollution 1113
Helicotylenchus, bananas, survey 324
Helicotylenchus borinquensis, Pteris vittata, new host/geographic record 377
Helicotylenchus microcephalus, Piper betle 927
Helicotylenchus varicaudatus, Pteris vittata, new geographic record 377
Hemicycliophora guptai, n.sp, *Adiantum venustum* 377
Heterodera avenae, oats, new record 946
Hexamermis
Achaea janata, prevalence 333
Heliothis armigera 600
Lepidoptera, prevalence 333
Macroposthonia macrolobata, Dryopteris chrysocoma, new host record 377
Macroposthonia onoensis, Targionia hypophylla, new host/geographic record 377
marine nematodes
mangrove soils, energy flow 170
marine sediments
pollution 364
seasonal fluctuations, sediments texture 625
pollution 195
Meloidogyne
Celosia grandifolia 925
Impatiens balsamina 925
Petunia alba 925
Portulaca grandifolia 925
weeds, surveys 929
Meloidogyne arenaria, vegetables 30
Meloidogyne graminicola, bananas, survey 324
Meloidogyne incognita
bananas, survey 324
fungi, *Hyoscymus cuticus* 551
Piper betle 927
vegetables 30
Meloidogyne javanica
Abutilon indicum, new host record 575
Adhatoda vasica, new host record 575
Ammi visnaga, new host record 575
Asparagus racemosus, new host record 575
Calotropis procera, new host record 574
Cassia occidentalis, new host record 574
Coleus aromaticus, new host record 575
Commiphora wightii, new host record 575
Convolvulus microphyllus, new host record 575
Desmodium gangeticus, new host record 575
Digitaria cruciata, new host record 574
Dill, new host record 308
Indigofera tinctoria, new host record 575
Ipomoea carnea, new host record 574
Ipomoea eriocarpa, new host record 574

India *cont.*
Meloidogyne javanica cont.
Launaea asplenifolia, new host record 574
Lucas aspera, new host record 308
Pluchea lanceolata, new host record 575
Plumbago zeylanica, new host record 575
Portulaca quadrifida, new host record 574
Psoralea corylifolia, new host record 575
Rumex acetocella, new geographical record 308
Salvia sclarea, new host record 575
Sisymbrium irio, new host record 308
Solanum sisymbrifolium, new host record 575
Sonchus asper, new host record 308
vegetables 30
Meristacrum asterospermum, new record 1118
Ovomermis albicans
Heliothis armigera, new host record, prevalence 333
Heliothis assulta, new host record, prevalence 333
Heliothis peltigera, new host record, prevalence 333
Paralongidorus agni, n.sp., sugarcane 668
Paralongidorus buckeri, n.sp., sugarcane 668
Paratrophurus sacchari, n.sp., sugarcane 638
Pentatomimermis, Nezara viridula, new host record, prevalence 333
plant parasitic nematodes
Cajanus cajan 549
Catharanthus roseus 551
Cicer arietinum 549
Cymbopogon 551
forest trees 314
grapes, reviews 128
Mentha 551
Piper betle 927
pulses, prevalence 6
rice 319
population dynamics 590
vegetables, prevalence 6
Vetiveria 551
Pratylenchus, bananas, survey 324
Quinisulcius curvus, Pteris vittata, new host record 377
Radopholus similis, bananas, prevalance 324
Rotylenchulus reniformis
bananas, survey 324
crops 930
Portulaca oleracea, new host record 931
Trichodorus borai, n.sp., *Bambusa* 87
Trichodorus complexus, n.sp., *Calamus viminalis* 87
Trophotylenchulus andhraensis n.sp., *Citrus aurantifolis* 390
Trophotylenchulus piperis, n.sp., *Piper nigrum* 81
Tylenchorhynchus amgi, n.sp., *Coffea arabica* 384
Tylenchorhynchus cynodoni, n.sp., *Cynodon dactylon* 384
Tylenchorhynchus musae, n.sp., *Musa* 384
Tylenchus andrassyi, n.sp., soil 73
Tylenchus arcuatus, Cheilanthes, new host record 377
Tylenchus davainei, Plagiochasma appendiculatum, new geographic record 377
Tylenchus hayati, n.sp., rice 382
Tylenchus rohtargus, n.sp., *Citrus lemon* 382
Indigofera tinctoria, Meloidogyne javanica, India, new host record 575
Insects
Amphimermis unka, rice, associations 41
Insects *cont.*
Heterorhabditis bacteriophora
biological control 45
susceptibility 959
Neoaplectana, biological control 45
Neoaplectana carpocapsae
biological control 45
susceptibility 959
Interactions
Belonolaimus longicaudatus, Dolichodorus heterocephalus, maize, pathogenicity 457
Criconemella xenoplax
Fusarium oxysporum, peaches 618
Fusarium solani, peaches 618
Globodera, fungi 188
Globodera pallida, fungi, potatoes 970
Globodera rostochiensis, fungi, potatoes 970
Helicotylenchus dihystera, fungi, *Sorghum* 612
Helicotylenchus pseudorobustus, soyabeans 732
Heterodera, fungi, *Sorghum* 612
Heterodera avenae
Nematophthora gynophila, cereals 219
Verticillium chlamydosporium, cereals 219
Heterodera glycines, soyabeans 732
Heterodera schachtii, Meloidogyne hapla, tomatoes, temperature 157
Heterorhabditis, Xenorhabdus, Pseudaletia unipuncta 354
Longidorus elongatus, protozoa, Italy 352
Meloidogyne
fungi 188
Fusarium 620
Meloidogyne arenaria, Meloidogyne incognita, soyabeans 689
Meloidogyne hapla
Bacillus 822
fungi, lucerne 613
Glomus fasciculatum, onions 57
Meloidogyne incognita
bananas 148
Fusarium oxysporum
cotton 615
Cucurbita pepo 351
Gigaspora margarita, cotton, superphosphate 622
Glomus fascoculatum, tomatoes 979
Glomus intraradices, cotton, superphosphate 622
Macrophomina phaseolina, Phaseolus vulgaris 349
Paecilomyces lilacinus, tomatoes 1165
Pseudomonas solanacearum, ginger 977
Pythium aphanidermatum, Capsicum annuum 969
Rhizoctonia solani
Capsicum annuum 969
tomatoes 353
Rotylenchulus reniformis
tomatoes 305
Tylenchorhynchus brassicae 1112
Sclerotium rolfsii, tomatoes 353
Verticillium dahliae, tomatoes 353
Meloidogyne javanica
Earias vittella, Hibiscus esculentus 980
Fusarium oxysporum, Cicer arietinum 621
Helicotylenchus microcephalus, Pratylenchus sefaensis, Phaseolus lunatus, effect of rainfall 499
Nacobbus aberrans
Heterodera schachtii, sugarbeet 727
Meloidogyne hapla, sugarbeet 727
Nematoda, viruses, tobacco 53
Neoaplectana, Xenorhabdus, Pseudaletia unipuncta 354
Neoaplectana carpocapsae
Bacillus subtilis, Galleria mellonella 36
Interactions *cont.*
Neoaplectana carpocapsae cont.
Xenorhabdus nematophilus, Galleria mellonella 36
Neoaplectana glaseri, Xenorhabdus nematophilus 52
Paratylenchus projectus, soyabeans 732
plant parasitic nematodes
Meria coniospora 180
Rhizoctonia solani, tomatoes 614
Pratylenchus penetrans
Fusarium oxysporum, lucerne 54
Verticillium 620
Pratylenchus scribneri, soyabeans 732
Pratylenchus sefaensis
Meloidogyne javanica
Rotylenchulus reniformis
maize 780
Vigna unguiculata 780
Pratylenchus sudanensis, Fusarium oxysporum, cotton 976
Pratylenchus zeae, fungi, *Sorghum* 612
Quinisulcius acutus, fungi, *Sorghum* 612
Rotylenchulus reniformis, bananas 148
Tylenchorhynchus martini, soyabeans 732
Ipomoea batatas
Meloidogyne incognita
DS 38697 805
population dynamics 695
resistance 424, 695, 1044
Meloidogyne javanica, resistance 424
Rotylenchulus borealis, pathogenicity 147
Rotylenchulus reniformis, resistance 1044
Syro hughdavidi, n.g., n.sp., Papua New Guinea 83
Syro orphreyifer, n.g., n.sp., Papua New Guinea 83
Syro vexillatrix, n.g., n.sp., Papua New Guinea 83
Ipomoea carnea, Meloidogyne javanica, India, new host record 574
Ipomoea eriocarpa, Meloidogyne javanica, India, new host record 574
Ips sexdentatus
Contortylenchus diplogaster, host proteins 454
Parasitaphelenchus, host proteins 454
Iraq
Meloidogyne javanica, grapes 321
plant parasitic nematodes, grapes 321
Irish Republic
Aphelenchoides lichenicola, n.sp., *Cladonia glauca* 669
Ottolenchus cabi, n.sp., *Cladonia glauca* 669
plant parasitic nematodes, *Cladonia glauca*, surveys 669
Irrigation, *Meloidogyne*, crops, Nigeria 25
Isazophos
Belonolaimus longicaudatus, Cynodon dactylon 844
Ditylenchus dipsaci, onions 1146
Helicotylenchus microcephalus, Phaseolus lunatus 499
Heterodera carotae, carrots 1146
Meloidogyne javanica
Phaseolus lunatus 499
tomatoes 1146
Paratrichodorus minor, Cynodon dactylon 844
Pratylenchus sefaensis, Phaseolus lunatus 499
Isofenphos
Hirschmanniella mucronata, rice 857, 1163
plant parasitic nematodes, *Agrostis palustris* 875
Isomermis bipapillatus, n.sp., *Simulium japonicum*, Japan 665
Isomermis lairdi, Simulium damnosum, Ghana, reduction in *Onchocerca volvulus* transmission 348
Isopoda, *Thaumamermis cosgrovei*, viruses, associations 55
Isoptera, *Neoaplectana carpocapsae*, biological control agent 43

Isthmusimermis amphidis
n.sp., Austria 381
river water, Austria 381
Italy
free living nematodes, mosses, lead pollution 802
Longidoridae, surveys 401, 944
Longidorus aetnaeus
n.sp.
Juniperus 1007
Quercus ilex 1007
Longidorus elongatus, protozoa, interactions 352
Orthomermis oedobranchus, Diptera, biological control organisms 606
Tylencholaimus constrictus, n.sp., *Fagus* 1011
Tylencholaimus minutus, n.sp., *Fagus* 1011
Xiphinema barense
n.sp.
olives 994
Rubus fruticosus 994
Ivory Coast
Brumptaemilius monsarratae, n.sp., *Pachybolus laminatus* 89
Brumptaemilius venardi, n.sp., *Pachybolus laminatus* 89
Obainia petteri, n.sp., *Pachybolus laminatus* 367
plant parasitic nematodes, sugarcane, nematicides, economic loss 448
Pratylenchus brachyurus, pineapples, intercropping 1116
Willinema eburnense, n.sp., *Diospyros chevalieri* 373
Willinema nanum, n.sp., *Diospyros chevalieri* 373
Ixonema powelli, n.sp., marine sediments, Mexico 380
Jamaica, *Sclerolabia jamaicensia*, n.g., n.sp., soil 374
Japan
bibliographies, nematology 912
Bursaphelenchus xylophilus
Monochamus alternatus
Pinus 962
Pinus densiflora, transmission 48
Pinus densiflora, host mortality 728
Pinus thunbergii
forest influences, stream flow 125
host mortality 728
seasonal variation 193
Cephalenchus daisuce, n.sp., *Cirsium suffultum* 658
Cephalenchus nemoralis, n.sp., forest trees 658
Cephalenchus planus, redescribed 658
Cephalenchus potamophilus, n.sp., *Scirpus wicherai* 658
Coslenchus costatus, morphology 389
Coslenchus japonicus, n.sp., *Orixa japonica* 389
Gastromermis mesostoma, n.sp., *Simulium japonicum* 665
Globodera hypolysi, n.sp., *Artemisia princeps* 393
Gracilacus yokooi, n.sp., mulberries 407
Heterodera glycines
soyabeans
pathology 738
prevalence 738
Hoplotylus montanus, n.sp., *Abies* 388
Isomermis bipapillatus, n.sp., *Simulium japonicum* 665
Meloidogyne camelliae
Camellia sinensis, *Trifolium repens*, new host record, seasonal dynamics 293
Eurya emarginata, *Trifolium repens*, new host record, seasonal dynamics 293
Eurya japonica, *Trifolium repens*, new host record, seasonal dynamics 293
Meloidogyne mali
apples, morphology 394
mulberries, morphology 394
Japan *cont.*
Meloidogyne suginamiensis, n.sp., mulberries 408
Merlinius acuminatus, n.sp., *Imperata cylindrica* 1001
Mermithidae
Prosimulium kiotoense 35
Simulium japonicum 35
Simulium uchidae 47
Nothocriconema miscanthi, n.sp., *Miscanthus sinensis* 656
Nothocriconema yakushimense, n.sp., *Morus australis* 406
Ogma brevistylum, n.sp., *Morus australis* 406
plant parasitic nematodes
general account 303
mulberries, surveys 325
Pratylenchoides magnicaudoides, n.sp., *Orixa japonica* 388
Pratylenchus coffeae
Colocasia esculenta
control 455
pathogenicity 455
Sphaeronema camelliae, n.sp., *Camellia japonica* 629
Xiphinema, forest trees, morphology 402
Xiphinema chambersi, *Xiphinema simillimum*, forest trees, new geographic record 402
Juniperus, *Longidorus aetnaeus*, n.sp., Italy 1007
Juniperus chinensis, *Enchodelus southeyi*, n.sp., China 646
Jute, plant parasitic nematodes, population dynamics, irrigation 784
Kara Sea
Pseudocella karensis, n.sp. 397
Pseudocella tenuis, described 397
Karachinema elongatum, n.g., n.sp., onions, Pakistan 80
Kenya
Meloidogyne incognita, aubergines, DD 218
Meloidogyne javanica, aubergines, DD 218
Rhabditis dolichuroides, n.sp., Scarabaeidae 64
Keys
Anguininae 633
Ataloderinae 412
Bidera 412
Cephalenchus 658
Christiellinae 375
Coslenchus 657
Dorylaimidae 560
Heterodera 412
Heteroderidae 412
Heteroderinae 412
Hystrignathinae 375
Meloidodera 412
Nygellus 75
Ottolenchus 654
Peltamigratus 630
Plectus, females 378
Pseudosteineria 379
Punctoderinae 412
Qudsianematidae 559
Sabatieria 84
Schubartnematinae 375
Seriespinula 635
Thelastomatinae 375
Tylencholaimus 1011
Willinema 373
Klossiella brevistoma, n.sp., *Passalus punctatostriatus*, Brazil 375
Klossiella longistoma, n.sp., *Passalus toriferus*, Brazil 375
Klossiella travassosi, n.g., n.sp., *Passalus alius*, Brazil 375
Klossnema repentina, n.g., n.sp., *Passalus punctatostriatus*, Brazil 375
Klossnematinae, n.subfam., taxonomy 375
KT<199, *Meloidogyne incognita*, tomatoes 1145
Lagenidium caudatum
Xiphinema americanum, biological control agent 616
Xiphinema rivesi, biological control agent 616
Laimaphelenchus, taxonomy 67
Laimaphelenchus corticilis, species inquirendae 67
Laimaphelenchus exilis, species inquirendae 67
Laimaphelenchus lignophilus, species incertae sedis 67
Laimaphelenchus montanus, synonym of *Laimaphelenchus penardi* 67
Laimaphelenchus parvus, synonym of *Laimaphelenchus pini* 67
Laimaphelenchus penardi, synonymy 67
Laimaphelenchus pini, synonymy 67
Laimaphelenchus sapinus, species inquirendae 67
Laimaphelenchus silvaticus, synonym of *Laimaphelenchus penardi* 67
Laimaphelenchus tennarius, species inquirendae 67
Laimaphelenchus vescus, species inquirendae 67
Laimydorus, taxonomy 386
Laimydorus filiformis, for *Paradorylaimus filiformis* 651
Laimydorus parafecundus, n.comb., for *Dorylaimus parafecundus* 651
Laimydorus tenuistriatus, n.comb., for *Dorylaimus tenuistriatus* 651
Larix sibirica, *Helicotylenchus ryzhikovi*, n.sp., USSR 650
Launaea asplenifolia, *Meloidogyne javanica*, India, new host record 574
Leeks, *Ditylenchus dipsaci* 15
Legumes
Ditylenchus dipsaci
France
control 1022
resistance 1022
Rotylenchulus reniformis, China 93
Leidynema appendiculata, oogenesis, karyotype 335
Leipotylenchus secalis, n.sp., *Secale silvestre*, USSR 648
Lelenchus criniformicaudatus, to *Filenchus criniformicaudatus*, n.comb. 670
Lens, *Longidorus profundorum*, pathogenicity 446
Lepidoptera, *Hexamermis*, India, prevalence 333
Leptolaimus sebastiani, n.sp., Argentina 1015
Leptolaimus vinnulus, Argentina, new geographic record 1015
Leptolegnia
Xiphinema americanum, biological control agent 616
Xiphinema rivesi, biological control agent 616
Leptosomatum woodsi, n.sp., Gulf of Mexico 992
Lespedeza striata, *Heterodera glycines*, resistance 1040
Leucaena
Meloidogyne incognita, resistance 1050
Meloidogyne javanica, resistance 1050
Leucaena leucocephala
Meloidogyne incognita, resistance 1031
plant parasitic nematodes, Nigeria, alley cropping 550
Libya, plant parasitic nematodes, wheat 947
Life history
Bursaphelenchus 603
Bursaphelenchus xylophilus 429
Pinus 921
Caenorhabditis elegans 475, 477
Heterodera ciceri, *Cicer arietinum* 1099
Heterodera goettingiana, peas 1098
Heterodera schachtii 777
Incurvinema helicoides 376
marine nematodes 363
Meloidogyne exigua 1100-1101
Meloidogyne incognita 168, 775
Meloidogyne javanica 775
Nacobbus aberrans 287
Paralongidorus australis, rice, Australia 1123
Radopholus similis 169
Rhigonematida 627

Life history *cont.*
Rotylenchulus reniformis 476
Ligia oceanica, *Gammarinema ligiae,* North Sea 996
Ligyrus subtropicus
Heterorhabditis heliothidis, biological control agent 46
Neoaplectana carpocapsae, biological control agent 46
Neoaplectana glaseri, biological control agent 46
Lilies, *Aphelenchoides fragariae,* pathogenicity 750
Lilium, *Meloidogyne,* Pakistan, new host record 17
Lilium henryi
Ditylenchus dipsaci, pathology, fasciation, genetics 144
Rotylenchus, pathology, fasciation, genetics 144
Limnomermis angustifrons, Chironomus plumosus, USSR, morphology 649
Linum usitatissimum, plant parasitic nematodes, USSR, prevalence 578
Lolium
Anguina agrostis
Corynebacterium
Australia
annual rygrass toxicity 964
control 965
Lolium perenne, *Meloidogyne microtyla,* pathogenicity 745
Longidoridae
France, distribution maps 914
hops, Belgium, virus transmission 619
Italy, surveys 401, 944
morphology 944
Poland, distribution maps 915
potatoes, Belgium, virus transmission 619
Spain, geographical distribution 1126
strawberries, Belgium, virus transmission 619
Longidorus
apples, Switzerland, prevalence, distribution 933
grapes, Switzerland, prevalence, distribution 933
sugarbeet, aldicarb 504
Longidorus aetnaeus
n.sp.
Juniperus, Italy 1007
Quercus ilex, Italy 1007
Longidorus breviannulatus
maize, host parasite interactions 577
peach rosette mosaic virus, transmission 963
tomato blackring virus, transmission 963
Longidorus carpetanensis, n.sp., *Cytisus purgans,* Spain 984
Longidorus diadecturus
peach rosette mosaic virus, transmission 963
tomato blackring virus, transmission 963
Longidorus elongatus
crops, USSR, population dynamic 242
protozoa, Italy, interactions 352
sugarbeet
USSR
control 242
pathogenicity 242
UK, localized spread 1106
Longidorus euonymus, morphology 401
Longidorus intermedius, morphology 401
Longidorus macromucronatus, *Acer,* USA, new geographical record 392
Longidorus macrosoma, raspberry ring spot virus, cherries, Switzerland, prevalence, altitude 971
Longidorus moesicus, morphology 401
Longidorus profundorum
barley, pathogenicity 446
Lens, pathogenicity 446
Vicia sativa, pathogenicity 446
wheat, pathogenicity 446
Longidorus proximus, artichokes, Greece, morphology, males 1006
Longidorus unedoi
n.sp.
Arbutus unedo, Spain 984
Quercus faginea, Spain 984
Longior longicollis, n.comb., for *Artigasia longicollis,* sensu Artigas, 1926 375
Loofia, synonym of *Hemicycliophora* 77
Losses
Bursaphelenchus xylophilus, Pinus 921
Ditylenchus
fruits, USSR 214
vegetables, USSR 214
Helicotylenchus, ornamental plants, greenhouses 928
Heterodera medicaginis, lucerne, USSR 723
Heterodera schachtii, sugarbeet, USSR 741
Hoplolaimus columbus
cotton, Egypt 730
soyabeans, Egypt 730
Meloidogyne arenaria, Arachis hypogaea 521
plant parasitic nematodes
sugarcane
Burkina Faso 448
Ivory Coast 448
wheat, USSR 571
Tylenchorhynchus claytoni, Bouteloua curtipendula 1060
Lucas aspera, *Meloidogyne javanica,* India, new host record 308
Lucerne
Ditylenchus dipsaci, resistance 415, 417
Helicotylenchus dihystera, seedling emergence 146
Heterodera medicaginis, USSR, losses 723
Heterodera schachtii, Finland, rotations 872
Meloidogyne arenaria, USA, resistance 416
Meloidogyne chitwoodi
pathogenicity 1059
resistance 1059
Meloidogyne hapla
fungi, interactions 613
pathogenicity 135, 1059
resistance 1059
seedling emergence 146
Meloidogyne incognita, USA, resistance 416
Meloidogyne javanica, USA, resistance 416
Paratylenchus projectus, seedling emergence 146
plant parasitic nematodes, USA, reviews 31
Pratylenchus neglectus, seedling emergence 146
Pratylenchus penetrans
carbofuran 440
Fusarium oxysporum, interactions 54
resistance 440
seedling emergence 146
sowing date 440
Yugoslavia 54
Lucilia cuprina
Heterorhabditis, pathogenicity 161
Neoaplectana, pathogenicity 161
Lymantria dispar
Neoaplectana bibionis, USA, biological control organisms 607
Neoaplectana carpocapsae
pathogenicity 347
USA, biological control organisms 607
Lymantria obfuscata, Agamermis, India 599
Macrophomina phaseolina, Meloidogyne incognita, Phaseolus vulgaris, interactions 349
Macroposthonia douceti, nom.nov., for *Criconemella multiannulata* 290
Macroposthonia macrolobata, Dryopteris chrysocoma, India, new host record 377
Macroposthonia onoensis, Targionia hypophylla, India, new host/geographic record 377
Macroposthonia ornata, Citrus, Cuba, new geographic record 27
Macroposthonia xenoplax, morphometry, differential characters 989
Madagascar
Coronostoma dentata, n.sp., Diplopoda 1014
Coronostoma diplopodicola, Cetonia, predation on Thelostomatidae 674
Glomerinema fanonyi, n.sp., Sphaeroteroidea 411
Glomerinema grandisperma, n.sp., Sphaeroteroidea 411
Glomerinema ritteri, n.sp., Sphaeroteroidea 411
Maize
Belonolaimus longicaudatus
aldoxycarb 520
carbofuran 236, 520
DD 236
1,3-dichloropropene 520
Dolichodorus heterocephalus, interactions, pathogenicity 457
ethylene dibromide 520
fenamiphos 520
metham sodium 520
oxamyl 520
prophos 520
subsoiling 236
terbufos 520
USA
Arthrobotrys amerospora 235
fenamiphos 235
Helicotylenchus erythrinae, host parasite interactions 577
Heterodera avenae, Poland, prevalence 935
Hoplolaimus galeatus
aldoxycarb 520
carbofuran 236, 520
DD 236
1,3-dichloropropene 520
ethylene dibromide 520
fenamiphos 520
host parasite interactions 577
metham sodium 520
oxamyl 520
prophos 520
subsoiling 236
terbufos 520
USA
Arthrobotrys amerospora 235
fenamiphos 235
Longidorus breviannulatus, host parasite interactions 577
Meloidogyne arenaria, USA, double cropping 795
Meloidogyne incognita
fenamiphos 1153
resistance 719
Meloidogyne javanica, population dynamics 780
Merlinius microdorus, Poland, prevalence 935
Ottolenchus azadkashmirensis, n.sp., Pakistan 654
Paratrichodorus christiei
USA
Arthrobotrys amerospora 235
double cropping 795
fenamiphos 235
Peltamigratus areolatus, n.sp., Brazil 630
plant parasitic nematodes
aldicarb 830, 854
AR 150867 854
Broot 830, 854
carbofuran 830, 854
ecology 441
fenamiphos 830
FMC 67825 830
Prophos 854
resistance 441
subsoiling 798
terbufos 830
Terbufos 854
Tropics, reviews 323
UC 70480 854

Maize *cont.*
plant parasitic nematodes *cont.*
UC 70667 854
UC 800017 830
UC 800027 854
Pratylenchus
carbofuran 236
DD 236
subsoiling 236
Pratylenchus agilis
pathogenicity 139
resistance 1046
Pratylenchus brachyurus, resistance 696
Pratylenchus crenatus, Poland, prevalence 935
Pratylenchus hexincisus, cultural methods, tillage 806
Pratylenchus neglectus, Poland, prevalence 935
Pratylenchus scribneri
carbofuran 874
FMC 67825 874
host parasite interactions 577
prophos 874
resistance 444
terbufos 874
UC 70480 874
UC 70667 874
Pratylenchus sefaensis
Meloidogyne javanica, *Rotylenchulus reniformis*, interactions 780
population dynamics 780
Pratylenchus zeae, resistance 696
Rotylenchulus borealis, pathogenicity 147
Rotylenchulus reniformis, population dynamics 780
Trichodorus christiei
carbofuran 236
DD 236
subsoiling 236
Tylenchorhynchus claytoni, host parasite interactions 577
Tylenchorhynchus dubius, Poland, prevalence 935
Tylenchorhynchus vulgaris, Poland, prevalence 935
Tylenchus thornei, Poland, prevalence 935
Xiphinema americanum, host parasite interactions 577
Malaysia
Arthrobotrys dendroides, n.sp., fruit trees 183
Rhigonema erringtoni, n.sp., Sphaeroteroidea 1013
Malenchus tantulus*, *Pinus sylvestris, Sweden, new geographic record 307
Mangoes, *Helicotylenchus obliquus*, n.sp., Pakistan 1000
Mangrove soils, marine nematodes, India, energy flow 170
Manihot esculenta*, *Meloidogyne incognita, USA, resistance 431
Manures
free living nematodes, soil 1119
plant parasitic nematodes, soil 1119
Maps
plant parasitic nematodes
crops, Africa, distribution 913
France 914
Poland 915
Yugoslavia 911
Marine nematodes
algae, Pacific Ocean, ecology 792
Antarctica 631
Atlantic Ocean, survey 1108
beach soils, Guadeloupe 189
Belgium, respiration, productivity 362
biology, conference 286
Caribbean Sea 986
France
ecology, community diversity 779
population density variations, substrate 623
population dynamics 360-361
survey 1108
German Federal Republic, ecology, feeding behaviour 356
Marine nematodes *cont.*
Gulf of Mexico, ecology 61
India, pollution 195
mangrove soils, India, energy flow 170
marine sediments
community structure, organic enrichment 359
ecology
deep-sea populations 626
reviews 171
India
pollution 364
seasonal fluctuations, sediments texture 625
Netherlands
pollution 173
population dynamics 199
USA, long-term variability 174
marine soils
Atlantic Ocean, survey 624
France, survey 172
Sweden, weight, survey 198
Netherlands, ecology, feeding behaviour 356
reviews 363
productivity 362
sperm dimorphism 1005
UK, pollution monitoring 981
Marine sands, free living nematodes, quantitative extraction 249
Marine sediments
Acantholaimus quadridentatus, n.sp., Mexico 380
Acanthopharyngoides bidentatus, n.sp., Mexico 380
Austranema mexicanum, n.sp., Mexico 380
Chromaspirinia longisetosa, n.sp., Mexico 380
Desmodora bulbosa, n.sp., Mexico 380
Desmodora curvispiculum, n.sp., Mexico 380
Desmodora punctata, n.sp., Mexico 380
Draconema claparedii, Spain 387
Filitonchoides thiobioticus, n.g., n.sp., Mexico 380
Ixonema powelli, n.sp., Mexico 380
marine nematodes
community structure, organic enrichment 359
ecology
deep-sea populations 626
reviews 171
India
pollution 364
seasonal fluctuations, sediments texture 625
Netherlands
pollution 173
population dynamics 199
USA, long-term variability 174
Marylynnia johanseni, n.sp., Mexico 380
Marylynnia punctata, n.sp., Mexico 380
Paracyatholaimus spinulosus, n.sp., Mexico 380
Prochaetosoma brighti, n.sp., Mexico 380
Prochaetosoma vitielloi, Spain 387
Prochromadorella papillata, n.sp., Mexico 380
Ptycholaimellus setosus, n.sp., Argentina 91
Rhips anoxybiotica, n.sp., Mexico 380
Marine soils
marine nematodes
Atlantic Ocean, survey 624
France, survey 172
Sweden, weight, survey 198
Marylynnia johanseni, n.sp., marine sediments, Mexico 380
Marylynnia punctata, n.sp., marine sediments, Mexico 380
Mathematical models
Heterodera schachtii, sugarbeet 777
marine nematodes
population dynamics 360
populations 981
nematicides, efficacy 237
plant parasitic nematodes, soil 186, 791
Mauritius
Paralongidorus, *Capsicum annuum*, new geographic record 385
Paralongidorus buchae, n.sp., *Capsicum annuum* 385
Medicago sativa*, *Meloidogyne, resistance 97
Medicinal plants, plant parasitic nematodes, reports 551
Mediterranean, *Meloidogyne artiellia*, crops 327
Meloidodera, keys 412
Meloidoderinae, taxonomy 412
Meloidogyne
Agrostis palustris, Triumph 861
aubergines, resistance, genetics 421
biochemistry, esterases 756
Cajanus cajan, resistance 549
Capsicum annuum
resistance 426
genetics 421
Celosia grandifolia, India 925
chemotaxonomy 1194
Chile, race identification 16
coffee
aldicarb 240
carbofuran 240
carbosulfan 240
Cosmos, Pakistan, new host record 17
crops
Nigeria, irrigation 25
Pakistan, new host records 585
Crotalaria, Pakistan, new host record 17
Cyclamen, general account 593
evolution 896
forest trees, Bulgaria, control 501
fungi, interactions 188
Fusarium, interactions 620
grasses, New Zealand, survey 939
host parasite relationships, gall formation 936
Impatiens balsamina, India 925
larvae, soil, USSR, control solar energy 205
Lilium, Pakistan, new host record 17
Medicago sativa, resistance 97
molecular genetics 1194
morphology 412
Ocimum basilicum, Pakistan, new host record 17
oesophageal granules, DNA 1081
ornamental plants, USSR, prevalence 570
Panicum maximum, rotations 230
Pasteuria penetrans, spore attachment 978
peaches, resistance 120
perineal pattern preparation 252
Petunia alba, India 925
Portulaca grandifolia, India 925
potatoes
resistance 707
genetics 421
race identification 883
Raphanus sativus, Pakistan, new host record 17
resistance screening, standardization 121
Solanaceae, resistance, reviews 1025
Sri Lanka, race identification 10
tobacco
Australia, pathogenicity 736
resistance 116
screening 888-889
South Africa, prevalence 328
USA, surveys 26
tomatoes
Bulgaria, resistance 109
resistance 251, 1019
genetics 421
Trifolium, New Zealand, survey 939
Trifolium alexandrinum, resistance 97
Trifolium incarnatum, resistance 97
Trifolium vesiculosum, resistance 97
vegetables
resistance 99, 423
rotations 230
Vigna unguiculata
Brazil, resistant varieties 708

Meloidogyne *cont.*
Vigna unguiculata cont.
soil amendments, cocoa pod husks 213
weeds, India, surveys 929
Meloidogyne acrita
morphology 1010
tomatoes, resistance 442
Meloidogyne acronea, *Pasteuria penetrans,* biological control 972
Meloidogyne arenaria
Alysicarpus, resistance 1052
Arachis hypogaea
aldicarb 237, 521, 821
carbofuran 521
1,3-dichloropropene 237
ethylene dibromide 521
fenamiphos 521
general account 300
oxamyl 521
prophos 521, 821
rotations 1154
clovers, resistance 709
Cucurbita pepo, organic fertilizers 211
Helianthus annuus, resistance 1020
lucerne, USA, resistance 416
maize, USA, double cropping 795
Meloidogyne incognita, soyabeans, interactions 689
morphology, variability 70
rice, USA, morphometrics 652
soyabeans
temperature, pathogenicity 179
USA 14
double cropping 795
tobacco, USA 315
tomatoes
organic fertilizers 211
Portugal 62
resistance 442
vegetables, India 30
Meloidogyne artiellia
crops, Mediterranean 327
hatching factors, temperature 467
Meloidogyne camelliae
Camellia sinensis, Trifolium repens, Japan, new host record, seasonal dynamics 293
Eurya emarginata, Trifolium repens, Japan, new host record, seasonal dynamics 293
Eurya japonica, Trifolium repens, Japan, new host record, seasonal dynamics 293
Meloidogyne caraganae, n.sp., *Caragana turkestanica,* USSR 88
Meloidogyne chitwoodi
lucerne
pathogenicity 1059
resistance 1059
potatoes, host parasite relationships, temperature 158
Meloidogyne exigua
coffee, extraction techniques 535
development 1100-1101
life history 1100-1101
morphology
intraspecific variation 995
scanning electron microscopy 76
rice, USA, morphometrics 652
weeds, Brazil, new host records 583
Meloidogyne fujianensis, n.sp., *Citrus reticulata,* China 396
Meloidogyne graminicola
bananas, India, survey 324
techniques, cryopreservation 1179
Meloidogyne hapla
Arachis hypogaea
aldicarb 855
carbofuran 855
fenamiphos 855
nematicides 822
prophos 855
Bacillus, soil, association 822
carrots, resistance 701
Cassia fasciculata, resistance 705
fungi, lucerne, interactions 613
Glomus fasciculatum, onions, interactions 57
Helianthus annuus, resistance 1020
Meloidogyne hapla *cont.*
Heterodera schachtii, tomatoes, interactions, temperature 157
lucerne
pathogenicity 135, 1059
resistance 1059
seedling emergence 146
Nacobbus aberrans, sugarbeet, interactions 727
Paeonia lactiflora, Hungary 12
Pelargonium graveolens
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512
Phaseolus vulgaris, pathogenicity, resistance 721
potatoes
ethylene dibromide 143
pathogenicity 143
rice, USA, morphometrics 652
Rosa
control
nematicides 811
soil steaming 811
resistance 420
Vicia cordata, resistance 705
Vicia grandiflora, resistance 705
Vicia sativa, resistance 705
Vicia villosa, resistance 705
Vinca minor, China 7
Meloidogyne incognita
aldoxycarb, physiological changes 511
Allium pskemense, USSR, new host record 3
Alysicarpus, resistance 1052
amoebae, predation 509
Arachis hypogaea, resistance 719
aubergines
control, soil amendments 1129
Kenya, DD 218
pathogenicity 722
resistance 94, 722
bananas
histology 148
India, survey 324
interactions 148
Capsicum annuum
aldicarb 876
carbofuran 876
pathogenicity 460
pathology, yield losses 1075
resistance 1028
carbofuran 879
Carica papaya
pathogenicity 126
resistance 126
cauliflowers
aldicarb 1158
carbofuran 1158
Chrysanthemum
cyromazine 517
fenamiphos 517
Cicer arietinum
Pakistan 2
resistance 122
Clitoria ternatea, resistance 1032
clovers, resistance 709
collagenous proteins 1093
control
Gaillardia picta, extracts 1171
Tithonia diversifolia, extracts 1171
Corchorus capsularis
dibromochloropropane 867
organic fertilizers 808, 867
Cosmos bipinnatus, nematicidal plants 1132
cotton
development 1076
pathogenicity 1076
crops, control, rotations 815
cucumbers, Puerto Rico, control 1128
Cucumis melo
organic fertilizers 241
plant extracts 241
Cucurbita pepo, fenamiphos 1153
Cyamopsis tetragonoloba, resistance 1026
Dioscorea, resistance 95
Eclipta alba, nematicidal plants 1132
ecology, population dynamics 794
Meloidogyne incognita *cont.*
fenamiphos 879
fungi, *Hyoscymus cuticus,* India 551
Fusarium, cotton, resistance 1048-1049
Fusarium oxysporum
Albizia julibrissin, resistance 430
cotton
interactions 615
resistance 1051
Cucurbita pepo, interactions 351
Gigaspora margarita, cotton, interactions, superphosphate 622
Glomus fascoculatum, tomatoes, interactions 979
Glomus intraradices, cotton, interactions, superphosphate 622
grapes
aldicarb 843
carbofuran 843
1,3-dichloropropene 843
fenamiphos 843
oxamyl 843
resistance 104
hatching factors 1078
Helianthus annuus, resistance 114, 1020
Hibiscus cannabinus, China, prevalence 950
Hibiscus esculentus
Arthrobotrys amerospora 235
fenamiphos 235
pathogenicity 722
resistance 722
Impatiens balsamina, pathogenicity 726
Ipomoea batatas
DS 38697 805
population dynamics 695
resistance 424, 695, 1044
juveniles
behaviour 156
physiology 156
subcellular granules 162
Leucaena, resistance 1050
Leucaena leucocephala, resistance 1031
life history 775
lucerne, USA, resistance 416
Macrophomina phaseolina, Phaseolus vulgaris, interactions 349
maize
fenamiphos 1153
resistance 719
Manihot esculenta, USA, resistance 431
Meloidogyne arenaria, soyabeans, interactions 689
Merlinius brevidens, tomatoes, population dynamics 452
Momordica charantia, pathogenicity 1073
Monacrosporium ellipsosporium, biological control agent 184
okra
nematicidal plants 1131
pathogenicity 1062
onions, resistance 1039
ova, *Paecilomyces lilacinus,* Peru, biological control agent 223
oxamyl 879
Paecilomyces lilacinus
Piper nigrum, biological control agent 968
tomatoes, interactions 1165
Pasteuria penetrans 59
peaches, resistance 101, 436
peas
aldicarb 1169
carbofuran 1169
fensulfothion 1169
mephosfolan 1169
Phaseolus vulgaris
pathogenicity 1066
pathology 1065
phenolic compounds 224
Philippines, biological control, nematophagous fungi 529
Piper betle
aldicarb 216
carbofuran 216
control, *Tagetes erecta* 1159
India 927

Meloidogyne incognita *cont.*
Piper betle cont.
organic fertilizers 1150
phorate 216
potassium sulphate 1151
resistance 1036
Piper nigrum
Brazil, pathogenicity 1058
pathogenicity
amino acids 725
organic acids 725
resistance, phenols 106
Prunus, resistance 1038
Pseudomonas solanacearum, ginger, interactions 977
Pythium aphanidermatum, *Capsicum annuum*, interactions 969
Rhizoctonia solani
Capsicum annuum, interactions 969
tomatoes, interactions 353
rice
resistance 683
USA, morphometrics 652
Rotylenchulus reniformis
tomatoes, interactions 305
Tylenchorhynchus brassicae, interactions 1112
Sclerotium rolfsii, tomatoes, interactions 353
Sesbania grandiflora, resistance 1031
soil
extraction techniques 893
storage temperature 891
Solanum sisymbrifolium, resistance 94
Sonchus oleraceus, nematicidal plants 1132
soyabeans
benomyl 803
carbofuran benomyl 803
ecology 1074
oxamyl benomyl 803
pathogenicity 1045, 1074, 1125
population dynamics 1045, 1125
resistance 718, 1053
temperature, pathogenicity 179
USA 14
Streptomyces scabies, potatoes, interactions 617
subnematicidal stress 879
sugarcane
pathogenicity 714
resistance 714, 1043
tobacco
FMC 67825 831
USA 315
fenamiphos 816
tomatoes
age resistance 102
aldicarb 220
biological control, *Paecilomyces lilacinum* 1165
carbofuran 220
Cuba, development 168
dimethoate 1172
KT-199 1145
organic fertilizers 1147
urine 222
pathogenicity 722, 746, 1072
pathology, giant cells 731
resistance 119, 435, 442, 719, 722, 1072
oxidative enzymes 96
Terr-O-gas 67 868
vegetables, India 30
Verticillium chlamydosporium, *Piper nigrum*, biological control agent 968
Verticillium dahliae, tomatoes, interactions 353
Vigna aconitifolius, resistance 687
Vigna mungo, resistance 1029
Vigna radiata
aldicarb 526
carbofuran 526
organic fertilizers 1173
resistance 422, 1029
terbufos 526
Vigna unguiculata
organic fertilizers 1143
resistance 437, 719, 1029
mRNA synthesis 711

Meloidogyne incognita *cont.*
Zingiber officinale, Brazil 320
Zinnia elegans, nematicidal plants 1132
Meloidogyne javanica
Abutilon indicum, India, new host record 575
Adhatoda vasica, India, new host record 575
Allium pskemense, USSR, new host record 3
Alysicarpus, resistance 1052
Ammi visnaga, India, new host record 575
Asparagus racemosus, India, new host record 575
aubergines, Kenya, DD 218
Cajanus cajan
pathology 1017
resistance 1017
Calotropis procera, India, new host record 574
Capsicum, rotations 1161
carrots
development 1034
resistance 1034
Cassia occidentalis, India, new host record 574
Cicer arietinum, resistance 108
clovers, resistance 709
Coleus aromaticus, India, new host record 575
Commiphora wightii, India, new host record 575
Convolvulus microphyllus, India, new host record 575
Cymbopogon, plant extracts 522
Desmodium gangeticus, India, new host record 575
Desmodium ovalifolium, resistance 1033
Digitaria cruciata, India, new host record 574
Dill, India, new host record 308
Earias vittella, *Hibiscus esculentus*, interactions 980
Fusarium oxysporum
Albizia julibrissin, resistance 430
Cicer arietinum, interactions 621
Vigna unguiculata, resistance 718
gelatinous matrix, biochemistry, chitin 164
grapes
aldicarb 843
carbofuran 843
control
fenamiphos 1133
hot water treatment 1133
1,3-dichloropropene 843
fenamiphos 843
Iraq 321
oxamyl 843
Helianthus annuus, resistance 114, 1020
Helicotylenchus microcephalus, *Pratylenchus sefaensis*, *Phaseolus lunatus*, interactions, effect of rainfall 499
Indigofera tinctoria, India, new host record 575
Ipomoea batatas, resistance 424
Ipomoea carnea, India, new host record 574
Ipomoea eriocarpa, India, new host record 574
Launaea asplenifolia, India, new host record 574
Leucaena, resistance 1050
life history 775
Lucas aspera, India, new host record 308
lucerne, USA, resistance 416
maize, population dynamics 780
melons, rotations 1161
Paecilomyces lilacinus, biological control 1140
Phaseolus lunatus
aldicarb 499
carbofuran 499
isazophos 499
oxamyl 499

Meloidogyne javanica *cont.*
Pluchea lanceolata, India, new host record 575
Plumbago zeylanica, India, new host record 575
Portulaca quadrifida, India, new host record 574
Pratylenchus sefaensis
Rotylenchulus reniformis
maize, interactions 780
Vigna unguiculata, interactions 780
Prunus, resistance 1038
Psoralea corylifolia, India, new host record 575
Rumex acetocella, India, new geographical record 308
Salvia sclarea, India, new host record 575
Sisymbrium irio, India, new host record 308
soil, solarization 508
Solanum sisymbrifolium, India, new host record 575
Sonchus asper, India, new host record 308
soyabeans, USA 14
sugarcane
Brazil, control 850
resistance 1043
tobacco
control 908
resistance 690-691, 908
soil temperature 685
USA 315
fenamiphos 816
tomatoes
benfuracarb 1146
control
Hannoa undulata seed extracts 858
Pasteuria penetrans, nematicides 502
resistant varieties 1152
rotations 1152
growth inhibitors 453
isazophos 1146
methyl isothiocyanate 1146
Portugal 62
resistance, hydroxyurea 716
rotations 1161
vegetables, India 30
Vigna unguiculata, population dynamics 780
Zingiber officinale, Brazil 320
Meloidogyne mali
apples, Japan, morphology 394
hatching factors, temperature 773
mulberries, Japan, morphology 394
Meloidogyne microtyla
Festuca arundinacea, pathogenicity 745
Festuca rubra
Canada, new host record 589
pathogenicity 745
Lolium perenne, pathogenicity 745
Poa pratensis, pathogenicity 745
reproduction 745
Meloidogyne naasi
Aegilops, resistance 706
France, ecology, frost 486
wheat, resistance 706
Meloidogyne nataliei, genetics, synaptonemal complex 896
Meloidogyne salasi
n.sp.
rice
Costa Rica 78, 652
Panama 78
Meloidogyne suginamiensis, n.sp., mulberries, Japan 408
Meloidogyne turkestanica, n.sp., *Salsola richteri*, USSR 88
Melons, *Meloidogyne javanica*, rotations 1161
Mentha, plant parasitic nematodes, India 551
Mentha piperita, *Paratylenchus hamatus*, USSR, herbicides 841
Mephosfolan, *Meloidogyne incognita*, peas 1169

Meria coniospora, plant parasitic nematodes, interactions 180
Meristacrum asterospermum, India, new record 1118
Merlinius acuminatus, n.sp., *Imperata cylindrica*, Japan 1001
Merlinius bavaricus, potatoes, Pakistan, new geographic record 584
Merlinius brevidens, *Meloidogyne incognita*, tomatoes, population dynamics 452
Merlinius djungaricus, n.comb., for *Tylenchorhynchus djungaricus* 999
Merlinius microdorus, maize, Poland, prevalence 935
Merlinius salechardicus, n.sp., Arctic tundra, USSR 659
Mermis nigrescens
biochemistry, oxyhaemoglobin 152
Orthoptera
Pakistan 339
prevalence 338
Mermis quirindiensis, n.sp., *Phaulacridium vittatum*, Australia 985
Mermithidae
biological control organisms, reviews 345
Glyptotendipes gripekoveni, Poland 38
Phaulacridium vittatum, Australia 332
Prosimulium kiotoense, Japan 35
Raphidioptera, reviews 34
river water, Australia, pollution indicators 1104
Simuliidae 954
Simulium japonicum, Japan 35
Simulium uchidae, Japan 47
Solenopsis geminata, USA 42
Mesacanthoides fibulatus, morphology 992
Mesoanguina amsinckia, n.comb., for *Anguina amsinckia* 633
Mesoanguina balsamophila, n.comb., for *Anguina balsamophila* 633
Mesoanguina centaureae, n.comb., for *Subanguina centaureae* 633
Mesoanguina chartolepidis, n.comb., for *Subanguina chartolepidis* 633
Mesoanguina cousininae, n.comb., for *Subanguina cousininae* 633
Mesoanguina kopetdaghica, n.comb., for *Subanguina kopetdaghica* 633
Mesoanguina millefolii, n.g., n.comb., for *Sabanguina millefolii* 633
Mesoanguina mobilis, n.comb., for *Subanguina mobilis* 633
Mesoanguina montana, n.comb., for *Subanguina montana* 633
Mesoanguina moxae, n.comb., for *Anguina moxae* 633
Mesoanguina pharangii, n.comb., for *Anguina pharangii* 633
Mesoanguina picridis, n.comb., for *Subanguina picridis* 633
Mesoanguina plantaginis, n.comb., for *Subanguina plantaginis* 633
Mesoanguina varsobica, n.comb., for *Subanguina varsobica* 633
Metachromadora chandleri, sea water, USA, species patterns 357
Metachromadora obesa, sea water, USA, species patterns 357
Metachromadora remanei, sea water, USA, species patterns 357
Metachromadora vivipara, Northeast Atlantic, ecology, pollution effects 480
Metam-ammonium, *Bursaphelenchus xylophilus*, *Pinus* 524, 869
Metham sodium
Belonolaimus longicaudatus, maize 520
Ditylenchus destructor, potatoes 200
Ditylenchus dipsaci, strawberries 214
Heterodera glycines, soyabeans, USSR 820
Hoplolaimus galeatus, maize 520
potatoes, distribution 208
Pratylenchus penetrans, apples 845
Scutellonema cavenessi, *Arachis hypogaea* 1142
Methyl bromide
plant parasitic nematodes, sugarcane 209
toxicity, tomatoes 809
Methyl isothiocyanate
Heterodera carotae, carrots 1146
Meloidogyne javanica, tomatoes 1146
Mexico
Acantholaimus quadridentatus, n.sp., marine sediments 380
Acanthopharyngoides bidentatus, n.sp., marine sediments 380
Austranema mexicanum, n.sp., marine sediments 380
Chromaspirinia longisetosa, n.sp., marine sediments 380
Desmodora bulbosa, n.sp., marine sediments 380
Desmodora curvispiculum, n.sp., marine sediments 380
Desmodora punctata, n.sp., marine sediments 380
Filitonchoides thiobioticus, n.g., n.sp., marine sediments 380
Ixonema powelli, n.sp., marine sediments 380
Marylynnia johanseni, n.sp., marine sediments 380
Marylynnia punctata, n.sp., marine sediments 380
Paracyatholaimus spinulosus, n.sp., marine sediments 380
Prochaetosoma brighti, n.sp., marine sediments 380
Prochromadorella papillata, n.sp., marine sediments 380
Rhips anoxybiotica, n.sp., marine sediments 380
Miculenchus elegans
n.sp.
forest trees, USA 399
mosses, USA 399
Miculenchus salvus, morphology 399
Migdolus fryanus
Neoaplectana carpocapsae, Brazil, biological control 331
Neoaplectana glaseri
Brazil 330
biological control 331
Miscanthus sinensis, *Nothocriconema miscanthi*, n.sp., Japan 656
Mitranema mitrum, n.g.,n.sp., forest soils, Nigeria 290
Mocap (*see* prophos)
Molecular genetics
Caenorhabditis elegans 540, 542-543, 545-546, 755, 1188-1189, 1191-1193
Meloidogyne 1194
Momordica charantia, *Meloidogyne incognita*, pathogenicity 1073
Monacrosporium ellipsosporium, *Meloidogyne incognita*, biological control agent 184
Monhystera ampullocauda, to *Gammarinema ampullocauda*, n.comb. 996
Monhystera disjuncta
cadmium, toxicity 365
development, energy flow 159
physiology, energy flow 159
Monhystera microphthalma
cadmium, toxicity 365
pollution, bioassays, heavy metals 366
Monochamus alternatus
Bursaphelenchus xylophilus
Pinus, Japan 962
Pinus densiflora, Japan, transmission 48
Monographs
Nacobbus aberrans 287
Tylenchida, taxonomy 290
Mononchida, feeding behaviour, predation 1079
Morphology
Acantholaimus 642
reproductive system 642
Acantholaimus iubilus 642
Acantholaimus maks 642
Acantholaimus quintus 642
Acantholaimus septimus 642
Morphology *cont.*
Afenestra africana 661
Afrina hyparrheniae 68
Afrina spermophaga 68
Afrina tumefaciens 68
Anguininae 633
Atalodera 1003
Bidera 412
Bidera filipjevi, males 653
Bursaphelenchus mucronatus 640
Bursaphelenchus xylophilus 640, 921
Cactodera 412
Californidorus pinguicaudatus, male 400
Camacolaimus barbatus 1015
Comesomatidae 84
Coslenchus costatus, Japan 389
Criconemella kamali 993
Crossonema eurysoma 666
Crossonema fimcivatum 666
Cryphodera 412
Cylicolaimus magnus 992
Discolaimus major 1009
Discolaimus texanus 1009
Ditylenchus destructor 988
Dorylaimellus directus 74
Dorylaimellus montenegricus 74
Dorylaimellus monticolus 74
Dorylaimidae 560
Dracognomus marioni 986
Dracognomus simplex 986
Draconema claparedii 387
Eudorylaimus 1008
Gammarinema gammari 996
Gammarinema ligiae 996
Globodera 660
Gracilacus aonli 83
Halichoanolaimus, intestine 643
Halichoanolaimus minor 643
Hammerschmidtiella diesingi, surface topography 676
Helicotylenchus erythrinae 69
Hemicriconemoides cocophillus 69
Hemicriconemoides litchi 989
Hemicycliophora 77
Heterodera glycines 639
Heterodera schachtii, subcrystalline layer 414
Heterorhabditis bacteriophora 990
Hexamermis 409
Hirschmanniella spinicaudata 65
Hoplolaimus, tail 6
Hydromermis borokii 649
Hylonema 412
Leptolaimus vinnulus 1015
Limnomermis angustifrons 649
Longidoridae 944
Longidorus euonymus 401
Longidorus intermedius 401
Longidorus moesicus 401
Longidorus proximus 1006
Macroposthonia xenoplax 989
Meloidogyne 62, 412
Meloidogyne acrita 1010
Meloidogyne arenaria 652
variability 70
Meloidogyne exigua 76, 652
intraspecific variation 995
larvae 1100
Meloidogyne hapla 652
Meloidogyne incognita 652
Meloidogyne mali 394
Mesacanthoides fibulatus 992
Miculenchus salvus 399
Neoaplectana bibionis 662
Neoaplectana carpocapsae 662
Neoaplectana glaseri 662
Neoaplectana intermedia 662
Nothocriconema polynesianum 83
Nygellus clavatus 75
Nygellus mozammili 75
Nygellus subclavatus 75
Odontobius ceti 996
Ogma decalineatum 69, 1012
Panagrellus silusiae, cuticle 655
Paratylenchus mimulus 69
Paratylenchus nanus 66
Peltamigratus christiei 630
Peltamigratus holdemani 630
Peltamigratus ibiboca 630
Peltamigratus nigeriensis 630

Morphology *cont.*
Pheromermis vernalis 983
Pheromermis zaamini 983
plant parasitic nematodes, books 292
Pratylenchus brachyurus, effect of age 395
Pratylenchus zeae, effect of age 395
Prochaetosoma vitiellol 387
Prodorylaimus acris 386
Prodorylaimus dahli 386
Prodorylaimus filiarum 386
Prodorylaimus longicaudatoides 386
Prodorylaimus nyongi 386
Prodorylaimus paralongicaudatus 386
Prodorylaimus picardi 386
Prodorylaimus renwicki 386
Prodorylaimus rionensis 386
Pseudocella tenuis 397
Pseudosteineria inaequispiculata 379
Punctodera 412
Radopholus citrophilus 688
Rhigonema subulata 627
Rhigonematida 368
Rhizonema sequoiae 661
Rotylenchulus reniformis 11, 69, 93, 476
Sabatieria 84
Sabatieria breviseta 85
Sabatieria celtica 85
Sabatieria elongata 85
Sabatieria longispinosa 85
Sabatieria punctata 85
Sarisodera 412
Sarisodera hydrophila 661
Scutellonema 641
Scutellonema brachyurum, spicules 90
Sherodera 412
Sphaeronema rumicis 673
Subanguina picridis 675
Syro melanesicus 83
Thecavermiculatus 412, 1003
Thelastoma, female reproductive system 628
Tylenchida 290
Tylencholaimus mirabilis 1011
Tylencholaimus proximus 1011
Tylencholaimus stecki 1011
Tylencholaimus teres 1011
Tylenchus arcuatus 382
Verutus 412
Willinema 373
Xiphinema 402
Xiphinema bergeri 370
Xiphinema diversicaudatum 401
Xiphinema italiae 401
Xiphinema meridianum 634
Xiphinema nigeriense 370
Xiphinema oxycaudatum 370
Xiphinema parvistilus 634
Xiphinema rotundatum 370
Zelandodera 412
Morus australis
Nothocriconema yakushimense, n.sp., Japan 406
Ogma brevistylum, n.sp., Japan 406
Mosses
free living nematodes, Italy, lead pollution 802
Miculenchus elegans, n.sp., USA 399
Nematoda, Chile 13
Mukazia nova, n.g.,n.comb. 290
Mulberries
Gracilacus yokooi, n.sp., Japan 407
Meloidogyne mali, Japan, morphology 394
Meloidogyne suginamiensis, n.sp., Japan 408
plant parasitic nematodes, Japan, surveys 325
Musa
Radopholus citrophilus, resistance 688
Tylenchorhynchus musae, n.sp., India 384
Mustard
Heterodera schachtii
control, resistant varieties 1136
German Democratic Republic, resistance 445
Nacobbus, advisory leaflet 19
Nacobbus aberrans
Heterodera schachtii, sugarbeet, interactions 727
Meloidogyne hapla, sugarbeet, interactions 727
monographs 287
sugarbeet
development 727
pathogenicity 727
Namibia, free living nematodes, desert soils, ecology 490
Narcissus, *Ditylenchus dipsaci*, aldicarb 1175
Nectopelta annulata, n.g.,n.comb. 290
Nemadi, *Heterodera avenae*, wheat 810
Nemagon (*see* dibromochloropropane)
Nematicidal plants 825
Anguina tritici 522
Bursaphelenchus xylophilus 826
Hannoa undulata, *Meloidogyne javanica* 858
Heterodera avenae 522
Meloidogyne incognita 1132, 1159, 1171
okra 1131
Meloidogyne javanica 522
Tylenchulus semipenetrans 522
Nematicides (*see also* novel nematicides)
application methods, plant parasitic nematodes, soil 1174
application techniques 1186
Ditylenchus destructor, potatoes 210
efficacy 846
mathematical models 237
general account 531
Globodera rostochiensis, potatoes 819
maize, USA, economics, withdrawal 1199
Meloidogyne, forest trees 501
Meloidogyne hapla, *Arachis hypogaea* 822
mode of action 502, 804
pastures, nitrogen fixation 870
plant parasitic nematodes, *Cynodon dactylon* 527
reports 904
residues 836
soyabeans, USA, economics, withdrawal 1199
toxicity, Oligochaeta 514
UK, reviews 1201
USSR, official list 217
various, *Ditylenchus dipsaci*, strawberries 229
Nematoda (*See also* plant parasitic nematodes)
Brassica, books 288
mosses, Chile 13
Sesamum indicum, books 288
viruses, tobacco, interactions 53
Nematology
bibliographies, Japan 912
computer software 906
South Africa, conferences 284
USSR, bibliographies 291
Nematophagous fungi 180, 183-184, 616, 622, 797, 799
culture 770
culture techniques 197
hyphal coiling 489
India, new record 1118
Meloidogyne, egg masses, Philippines 529
Meloidogyne incognita 1165
production techniques 247
Rhabditis, chemotaxis 812
soil, USSR 227
specificity 190
Sweden 219
trap cells, interactions 496
ultrastructure, trapping organs 801
Nematophthora gynophila, *Heterodera avenae*, cereals, interactions 219
Neoaplectana
Cephalcia falleni, biological control 45
esterase analysis 163
insects, biological control 45
Lucilia cuprina, pathogenicity 161
soil, infectivity, temperature 161
Xenorhabdus, *Pseudaletia unipuncta*, interactions 354
Neoaplectana bibionis
Agrotis segetum, biological control 342
Drechmeria coniospora, susceptibility 797
Lymantria dispar, USA, biological control organisms 607
morphology, diagnostic characters 662
Spodoptera litura, infectivity 958
Synanthedon myopaeformis, biological control agent 336
Synanthedon typhiaeformis, biological control agent 336
Zeuzera pyrina, biological control agent 336
Neoaplectana carpocapsae
Alphitobius diaperinus, pathogenicity 602
Bacillus subtilis, *Galleria mellonella*, interactions 36
Cephalcia falleni, biological control 45
culture techniques 534
dispersal in soil 796
Drechmeria coniospora, susceptibility 797
Galleria mellonella
infectivity 1084
virulence, temperature 601
growth on chicken media 763
Heliothis zea, USA, biological control organisms 598
Hylobius abietis, Sweden, biological control agent 346
insects
biological control 45
susceptibility 959
Isoptera, biological control agent 43
Ligyrus subtropicus, biological control agent 46
Lymantria dispar
pathogenicity 347
USA, biological control organisms 607
Migdolus fryanus, Brazil, biological control 331
morphology, diagnostic characters 662
Oryctes rhinoceros, biological control agent 51
Otiorhynchus sulcatus, biological control agent 37
respiration, temperature 764
Spodoptera exigua, biological control organisms, encapsulation, calcium alginate 341
Spodoptera litura, infectivity 957, 1084
Synanthedon culiciformis, *Alnus*, USA, biological control organisms 956
Synanthedon myopaeformis, biological control agent 336
Synanthedon resplendens, *Platanus*, USA, biological control organisms 956
Synanthedon typhiaeformis, biological control agent 336
Tirathaba rufivena, biological control agent 51
Xenorhabdus nematophilus
Galleria mellonella
interactions 36
pathogenicity 967
Zeuzera pyrina, biological control agent 336
Neoaplectana feltiae, *Spodoptera litura*, infectivity 958
Neoaplectana glaseri
Alphitobius diaperinus, pathogenicity 602
biochemistry, protein synthesis 469
Drechmeria coniospora, susceptibility 797
Galleria mellonella, infectivity 1084
Ligyrus subtropicus, biological control agent 46
Migdolus fryanus
Brazil 330
biological control 331
morphology, diagnostic characters 662
Otiorhynchus sulcatus
biological control agent 37
strawberries, biological control organisms 955

Neoaplectana glaseri cont.
Scarabaeidae, sugarcane, Australia, biological control 961
Spodoptera litura, infectivity 958, 1084
Xenorhabdus nematophilus, interactions 52
Xenorhabdus nematophilus poinarii, Scarabaeidae 951
Neoaplectana intermedia
Drechmeria coniospora, susceptibility 797
morphology, diagnostic characters 662
n.sp., *Galleria mellonella*, USA 663
Neomisticius rhizomorphoides, n.g.,n.comb. 290
Netherlands
marine nematodes
ecology, feeding behaviour 356
marine sediments
pollution 173
population dynamics 199
Prodorylaimus mas, n.sp., soil 386
Prodorylaimus rotundiceps, n.sp., soil 386
Prodorylaimus uliginosus, n.sp., soil 386
reports, plant parasitic nematodes 282
New Zealand
Bursaphelenchus xylophilus, *Pinus radiata* 552
entomophilic nematodes
biological control 343
Proteodes carnifex 344
free living nematodes
pastures, seasonal dynamics 497
soil, *Pinus radiata* 488
Heterodera trifolii
grasses, survey 939
Trifolium, survey 939
Heterorhabditis heliothidis, *Beauveria bassiana*, *Sitona discoideus*, biological control organisms 953
Meloidogyne
grasses, survey 939
Trifolium, survey 939
plant parasitic nematodes, pastures, seasonal dynamics 497
Pratylenchus penetrans, raspberries, fenamiphos 528
Nezara viridula, *Pentatomimermis*, India, new host record, prevalence 333
Nicascolaimus punctatus, n.g., n.sp., Tasman Sea 1005
Nigeria
Meloidogyne, crops, irrigation 25
Mitranema mitrum, n.g.,n.sp., forest soils 290
plant parasitic nematodes, *Leucaena leucocephala*, alley cropping 550
Prodorylaimus, *Citrus*, morphology 386
Xiphinema dolosum, n.sp., grasses 370
Xiphinema fatikae, n.sp., *Sorghum* 370
Xiphinema majus, n.sp., grasses 370
Xiphinema oryzae, n.sp., rice 370
Nilaparvata lugens, *Amphimermis*, China, infectivity 334
Nitulidae, *Bursaphelenchus*, transmission 603
North Sea
Gammarinema ligiae, *Ligia oceanica* 996
Syringolaimus loofi, n.sp. 644
Northeast Atlantic, *Metachromadora vivipara*, ecology, pollution effects 480
Nothocriconema miscanthi, n.sp., *Miscanthus sinensis*, Japan 656
Nothocriconema yakushimense, n.sp., *Morus australis*, Japan 406
Nothocriconemella mutabilis, apples, Pakistan, new geographic record 22
Novel nematicides
KT-199 1145
4-phenylazophenol derivatives 828
Nutrition 766
Diplolaimella chitwoodi 358
Pungentus 497
Nygellidae, diagnosis emended 75
Nygellus
diagnosis emended 75
Nygellus cont.
keys 75
taxonomy 75
Nygellus clavatus, morphology 75
Nygellus mozammili, morphology 75
Nygellus subclavatus, morphology 75
Oats
Ditylenchus dipsaci
Belgium
resistance 419
reviews 1024
Heterodera avenae
Belgium
resistance 419
reviews 1024
Czechoslovakia, ontogenesis 478
India, new record 946
pathogenicity, resistance 712
plant parasitic nematodes, Tropics, reviews 323
Obainia petteri, n.sp., *Pachybolus laminatus*, Ivory Coast 367
Ocimum basilicum, *Meloidogyne*, Pakistan, new host record 17
Odontobius ceti, morphology 996
Ogma brevistylum, n.sp., *Morus australis*, Japan 406
Ogma chrisbarnardi, to *Syro chrisbarnardi*, n.g., n.comb. 83
Ogma decalineatum
Aldabra 69
morphology 69, 1012
ultrastructure 1012
Ogma (Homogma), n.subg. 290
Ogma (Pellipecten), n.subg. 290
Ogma terrestris, n.sp., soil, Chile 667
Okra
Meloidogyne incognita
nematicidal plants 1131
pathogenicity 1062
plant parasitic nematodes, population dynamics, fertilizers 785
Oligochaeta, toxicity, nematicides 514
Olives, *Xiphinema barense*, n.sp., Italy 994
Onions
Ditylenchus dipsaci
benfuracarb 1146
host carbohydrates 737
isazophos 1146
mode of infection 945
Poland
aldicarb 1138
oxamyl 1138
triazophos 1138
USSR
prevalence 123
resistance 123
Hirschmanniella oryzae 464
Karachinema elongatum, n.g., n.sp., Pakistan 80
Meloidogyne hapla, *Glomus fasciculatum*, interactions 57
Meloidogyne incognita, resistance 1039
plant parasitic nematodes 1202
Ophistreptus digitulatus, *Coronostoma gautuni*, n.sp., Burkina Faso 1014
Orchard crops
plant parasitic nematodes
control
nematicides 500
resistance 500
Organic fertilizers
free living nematodes, soil 1119
Meloidogyne arenaria
Cucurbita pepo 211
tomatoes 211
Meloidogyne incognita
aubergines 1129
Corchorus capsularis 808, 867
Cucumis melo 241
Piper betle 1150
tomatoes 1147
urine 222
Vigna radiata 1173
Vigna unguiculata 1143
Meloidogyne javanica, sugarcane 850
plant parasitic nematodes
aubergines 823-824
crops 1114
Pennisetum americanum 215
soil 1119
Organic fertilizers *cont.*
plant parasitic nematodes *cont.*
Trifolium alexandrinum 215
triticale 1130
Pratylenchus zeae, sugarcane 850
Tylenchorhynchus brassicae, aubergines 1129
Xiphinema americanum, raspberries 807
Orientylus, numerical taxonomy 413
Orixa japonica
Coslenchus japonicus, n.sp., Japan 389
Pratylenchoides magnicaudoides, n.sp., Japan 388
Ornamental plants
Helicotylenchus, greenhouses, USSR, new geographic records, losses 928
Meloidogyne, USSR, prevalence 570
plant parasitic nematodes
control 1054
pathogenicity 1054
Pratylenchus coffeae, susceptibility 941
Orthomermis oedobranchus, Diptera, Italy, biological control organisms 606
Orthoptera
Mermis nigrescens
Pakistan 339
prevalence 338
Oryctes rhinoceros, *Neoaplectana carpocapsae*, biological control agent 51
Otiorhynchus rugifrons, *Heterorhabditis heliothidis*, Switzerland, biological control organisms 605
Otiorhynchus sulcatus
Heterorhabditis heliothidis
biological control agent 37
Switzerland, biological control organisms 605
Neoaplectana carpocapsae, biological control agent 37
Neoaplectana glaseri
biological control agent 37
strawberries, biological control organisms 955
Ottolenchus, keys 654
Ottolenchus azadkashmirensis, n.sp., maize, Pakistan 654
Ottolenchus cabi, n.sp., *Cladonia glauca*, Irish Republic 669
Ottolenchus cylindricus, n.comb., for *Tylenchus cylindricus* 669
Ottolenchus discrepans, n.comb., for *Tylenchus discrepans* 669
Ottolenchus facultativus
n.comb., for *Tylenchus facultativus* 669
potatoes, Pakistan, new geographic record 654
Ottolenchus helenae, n.comb., for *Tylenchus helenae* 669
Ottolenchus longicauda, n.sp., sugarcane, Pakistan 654
Ottolenchus platycephalus, n.comb., for *Tylenchus platycephalus* 669
Ottolenchus vesiculosus, n.comb., for *Tylenchus vesiculosus* 669
Ovomermis albicans
Heliothis armigera, India, new host record, prevalence 333
Heliothis assulta, India, new host record, prevalence 333
Heliothis peltigera, India, new host record, prevalence 333
Oxamyl
Aphelenchoides fragariae, *Rhododendron* 1148
Belonolaimus longicaudatus, maize 520
Ditylenchus dipsaci
garlic 864
tulips 532
Globodera pallida, potatoes 1170
Globodera rostochiensis, potatoes 838
Helicotylenchus microcephalus, *Phaseolus lunatus* 499
Heterodera avenae, wheat 810
Hoplolaimus galeatus, maize 520
Meloidogyne arenaria, *Arachis hypogaea* 521
Meloidogyne incognita 879
grapes 843

Oxamyl *cont.*
Meloidogyne javanica
grapes 843
Phaseolus lunatus 499
mode of action 804
Paratrichodorus pachydermus, potatoes 804
plant parasitic nematodes
grapes 842
pineapples 317
sugarbeet 244
Pratylenchus sefaensis, *Phaseolus lunatus* 499
Pratylenchus vulnus 879
residues 836
soil, biochemistry 239
toxicity
microorganisms, soil 518
rabbits 834
rats 834
Trichodorus cylindricus, potatoes 804
Trichodorus primitivus, potatoes 804
Tylenchulus semipenetrans, *Citrus* 212
Xiphinema index 879
Oxamyl benomyl, *Meloidogyne incognita*, soyabeans 803
Pachybolus laminatus
Brumptaemilius monsarratae, n.sp., Ivory Coast 89
Brumptaemilius venardi, n.sp., Ivory Coast 89
Obainia petteri, n.sp., Ivory Coast 367
Pacific Ocean, marine nematodes, algae, ecology 792
Paddy soils, carbofuran, leaching 1149
Paecilomyces lilacinus
biological control organisms 529
growth requirements 197
Meloidogyne incognita
ova, Peru, biological control agent 223
Piper nigrum, biological control agent 968
tomatoes, interactions 1165
Meloidogyne javanica, biological control 1140
Paeonia lactiflora
Meloidogyne hapla, Hungary 12
plant parasitic nematodes, Hungary, new geographic records 12
Pakistan
Criconemella parvula, *Citrus*, new geographic record 22
Criconemella pruni
almonds, new geographic record 22
apples, new geographic record 22
Globodera rostochiensis, potatoes, surveys 580
Helicotylenchus exallus, new geographic record 79
Helicotylenchus macronatus, new geographic record 79
Helicotylenchus obliquus, n.sp., mangoes 1000
Heterodera zea, *Prunus amygdalus*, new host record 943
Karachinema elongatum, n.g., n.sp., onions 80
Meloidogyne
Cosmos, new host record 17
crops, new host records 585
Crotalaria, new host record 17
Lilium, new host record 17
Ocimum basilicum, new host record 17
Raphanus sativus, new host record 17
Meloidogyne incognita, *Cicer arietinum* 2
Merlinius bavaricus, potatoes, new geographic record 584
Mermis nigrescens
Orthoptera 339
prevalence 338
Nothocriconemella mutabilis, apples, new geographic record 22
Ottolenchus azadkashmirensis, n.sp., maize 654
Ottolenchus facultativus, potatoes, new geographic record 654
Pakistan *cont.*
Ottolenchus longicauda, n.sp., sugarcane 654
Pararotylenchus microstylus, n.sp., sugarcane 79
Paratrophurus anomalus, wheat, new geographic record 584
Quinisulcius solani, potatoes, population dynamics 185
Rotylenchus alii, n.sp., apples 1000
Rotylenchus cypriensis, apples, new geographic record 1000
Rotylenchus fragaricus, n.sp., strawberries 1000
Rotylenchus pakistanensis n.sp.
apples 1000
grapes 1000
Scutylenchus baluchiensis, n.sp., apples 79
Paktylenchus, synonym of *Coslenchus* 657
Panagrellus redivivus
Arthrobotrys oligospora, fungal cells, interactions 496
cold tolerance 1087
development, azasteroid 150
4-phenylazophenol derivatives 828
Panagrellus silusiae, morphology, cuticle 655
Panama, *Meloidogyne salasi*, n.sp., rice 78
Panicum maximum
Meloidogyne, rotations 230
seeds, *Aphelenchoides besseyi*, control 228
Papua New Guinea
plant parasitic nematodes
crops
pathogenicity 295
surveys 295
Syro hughdavidi, n.g., n.sp., *Ipomoea batatas* 83
Syro orphreyifer, n.g., n.sp., *Ipomoea batatas* 83
Syro vexillatrix n.g., n.sp.
Crotalaria lunata 83
Ipomoea batatas 83
Paracyatholaimus spinulosus, n.sp., marine sediments, Mexico 380
Paradorylaimus, synonym of *Laimydorus* 651
Paradorylaimus filiformis, to *Laimydorus filiformis* 651
Paradorylaimus heterurus, to *Roqueus heterurus*, n.comb. 651
Paradorylaimus parafecundus, redescribed 651
Paradorylaimus wilhelmschneideri, sp. incertae sedis 651
Paraguay
Carnoya mackintoshae, n.sp., *Rhinocricus bernardinensis* 627
Heth clunyi, n.sp., *Rhinocricus bernardinensis* 627
Heth magnavulvaris, n.sp., *Rhinocricus bernardinensis* 627
Heth parartigasi, n.sp., *Rhinocricus bernardinensis* 627
Ransomnema paraguayense, n.sp., *Rhinocricus bernardinensis* 627
Thelastoma dessetae, n.sp., *Rhinocricus bernardinensis* 628
Paralongidorus, *Capsicum annuum*, Mauritius, new geographic record 385
Paralongidorus agni, n.sp., sugarcane, India 668
Paralongidorus australis
n.sp., rice, Australia 404
rice
Australia
anhydrobiosis 1123
surveys 594
pathogenicity 404
virgin soils, Australia, surveys 594
Paralongidorus buchae
n.sp., *Capsicum annuum*, Mauritius 385
tomatoes
histology 447
pathogenicity 447
Paralongidorus buckeri, n.sp., sugarcane, India 668
Pararotylenchus microstylus, n.sp., sugarcane, Pakistan 79
Parasitaphelenchus, *Ips sexdentatus*, host proteins 454
Parasitylenchidae, n.fam. 290
Parasitylenchinae, n.subfam. 290
Parasitylenchus contortus chalcographi, to *Bovienema gifuchsi*, nom.nov. 290
Paratrichodorus
sugarbeet, aldicarb 504
tobacco rattle virus, potatoes, Belgium, prevalence 58
Paratrichodorus christiei
Hibiscus esculentus
Arthrobotrys amerospora 235
fenamiphos 235
maize
USA
Arthrobotrys amerospora 235
double cropping 795
fenamiphos 235
soyabeans, USA, double cropping 795
Paratrichodorus minor
Cynodon dactylon
fenamiphos 844
isazophos 844
prophos 844
Paratrichodorus pachydermus
population dynamics 778
potatoes
aldicarb 804
oxamyl 804
Paratrophurus anomalus, wheat, Pakistan, new geographic record 584
Paratrophurus sacchari, n.sp., sugarcane, India 638
Paratylenchus dianthus, carnations, population dynamics 487
Paratylenchus fueguensis, n.sp., soil, Chile 667
Paratylenchus hamatus, *Mentha piperita*, USSR, herbicides 841
Paratylenchus mimulus
Aldabra 69
morphology 69
Paratylenchus nanus, tobacco, Bulgaria, morphological variations 66
Paratylenchus projectus
lucerne, seedling emergence 146
soyabeans, interactions 732
Paratylenchus tui, n.sp., *Alphitonia zizyphoides*, Tonga 83
Paraxyo pauliani, n.comb., for *Artigasia pauliani* 375
Paspalum, *Seriespinula alternata*, n.sp., Argentina 635
Passalidae, plant parasitic nematodes, reviews 375
Passalus alius, *Klossiella travassosi*, n.g., n.sp., Brazil 375
Passalus interruptus, *Artigasia dubitata*, n.sp., Brazil 375
Passalus inundulifrons, *Artigasia magnacaput*, n.sp., Brazil 375
Passalus morio
Coronocephalus ovilamelatus, n.sp., Brazil 375
Hystrignathus papillophorus, n.sp., Brazil 375
Passalus punctatostriatus
Coronocephalus ovipunctatus, n.g., n.sp., Brazil 375
Hystrignathus metropolitanus, n.sp., Brazil 375
Hystrignathus paulistanus, n.sp., Brazil 375
Klossiella brevistoma, n.sp., Brazil 375
Klossnema repentina, n.g., n.sp., Brazil 375
Passalus toriferus
Anomalostoma vazi, n.g., n.sp., Brazil 375
Artigasia luizaugustoi, n.sp., Brazil 375
Klossiella longistoma, n.sp., Brazil 375
Pasteuria penetrans
Meloidogyne, spore attachment 978
Meloidogyne acronea, biological control 972

Pasteuria penetrans *cont.*
Meloidogyne incognita 59
Pastures
free living nematodes, New Zealand, seasonal dynamics 497
plant parasitic nematodes, New Zealand, seasonal dynamics 497
Pathogenicity
Amphimermis, Nilaparvata lugens 334
Anguina amsinckiae, Amsinckia intermedia 1069
Aphanitylenchus, Ceratophyllus consimilis 40
Aphelenchoides fragariae, lilies 750
Belonolaimus longicaudatus
Citrus 130
Dolichodorus heterocephalus, maize 457
Bursaphelenchus xylophilus
Picea pungens 1068
Pinus 749, 1068
water stress 145
Pinus densiflora 459, 735, 1061
Pinus thunbergii 459, 735
Pseudotsuga menzezii 1068
Contortylenchus diplogaster, Ips sexdentatus 454
Criconemella, peaches 136
Ditylenchus, Vicia faba 485
Ditylenchus destructor, potatoes 137
Ditylenchus dipsaci, garlic 8
Globodera pallida
potatoes 717, 758, 1056
tomatoes 746
Globodera rostochiensis
potatoes 137, 717, 758, 819, 1056-1057
water stress 449
Helicotylenchus dihystera, guavas 748
Heterodera avenae
oats 712
wheat 142
Heterodera ciceri
Cicer arietinum 1099
legumes 410
Heterodera glycines, soyabeans 724
Heterodera medicaginis, lucerne 723
Heterorhabditis, Lucilia cuprina 161
Heterorhabditis heliothidis, Alphitobius diaperinus 602
Hexamermis glossinae, Glossina 44
Hoplolaimus aegypti, cotton 694
Hoplolaimus columbus
Arachis hypogaea 729
cotton 730
Sesamum indicum 729
soyabeans 730
Hoplolaimus galeatus, Cynodon dactylon 439
Longidorus profundorum
barley 446
Lens 446
Vicia sativa 446
wheat 446
Meloidogyne arenaria, soyabeans 179
Meloidogyne chitwoodi, lucerne 1059
Meloidogyne hapla
lucerne 135, 1059
Phaseolus vulgaris 721
potatoes 143
Meloidogyne incognita
aubergines 722
Capsicum annuum 460
Carica papaya 126
cotton 1076
Hibiscus esculentus 722
Impatiens balsamina 726
Momordica charantia 1073
okra 1062
Phaseolus vulgaris 349, 1066
Piper nigrum 725, 1058
soyabeans 179, 1045, 1074, 1125
Streptomyces scabies, potatoes 617
sugarcane 714
tomatoes 96, 452, 722, 746, 1072
Meloidogyne javanica
Fusarium oxysporum, Cicer arietinum 621
tomatoes 453
Meloidogyne microtyla
Festuca arundinacea 745
Pathogenicity *cont.*
Meloidogyne microtyla cont.
Festuca rubra 745
Lolium perenne 745
Poa pratensis 745
Meloidogyne tobacco 736
Merlinius brevidens, tomatoes 452
Nacobbus aberrans 287
sugarbeet 727
Neoaplectana, Lucilia cuprina 161
Neoaplectana carpocapsae
Alphitobius diaperinus 602
Lymantria dispar 347
Xenorhabdus nematophilus, Galleria mellonella 967
Neoaplectana glaseri
Alphitobius diaperinus 602
Galleria mellonella 52
Paralongidorus australis, rice 404
Paralongidorus buchae
Capsicum annuum 385
tomatoes 447
Parasitaphelenchus, Ips sexdentatus 454
plant parasitic nematodes
crops, Papua New Guinea 295
Cynodon dactylon 439
ornamental plants 1054
sugarcane 127, 448
Pratylenchus agilis
maize 139
soyabeans 139
tomatoes 139
Pratylenchus brachyurus, soyabeans 133
Pratylenchus coffeae
Citrus 304
Colocasia esculenta, Japan 455
Pratylenchus crenatus
apples 1077
cherries 1077
pears 1077
Pratylenchus loosi, tea 451
Pratylenchus neglectus
apples 1077
cherries 1077
pears 1077
Pratylenchus penetrans
Pinus radiata 134
potatoes 1064
Pratylenchus thornei, Cicer arietinum 149
Pterotylenchus cecidogenus, Desmodium ovalifolium 744
Radopholus citrophilus, Citrus 304
Romanomermis culicivorax, Aedes vexans 337
Rotylenchulus borealis
Ipomoea batatas 147
maize 147
Rotylenchulus parvus, sugarcane 147
Rotylenchulus reniformis
tobacco 1070
tomatoes, age resistance 734
Scutellonema brachyurum, Aloe vera 1055
Sphaeronema rumicis, Populus angustifolia 673
Tylenchorhynchus claytoni, Bouteloua curtipendula, defoliation 1060
Tylenchulus semipenetrans, Citrus 129, 304, 873
Xiphinema diversicaudatum, peaches 974
Xiphinema index, grapes 461
Pathology
Anguina agrostis
Phleum 1063
Trisetum flavescens 1063
Bursaphelenchus mucronatus, Pinus densiflora 740
Bursaphelenchus xylophilus
Pinus densiflora 728, 739-740
Pinus thunbergii 728
Ditylenchus destructor, potatoes 462
Ditylenchus dipsaci
garlic 737
Lilium henryi 144
onions 737
Helicotylenchus dihystera, lucerne 146
Pathology *cont.*
Helicotylenchus multicinctus, bananas 919
Heterodera avenae, barley 747
Heterodera glycines, soyabeans 738
Heterodera schachtii, sugarbeet 741
Incurvinema helicoides, Rhadinopsylla pentacantha 376
Meloidogyne hapla, lucerne 146
Meloidogyne incognita
Capsicum annuum 1075
Phaseolus vulgaris 1065
tomatoes 731
Meloidogyne javanica, Cajanus cajan 1017
Paratylenchus projectus, lucerne 146
plant parasitic nematodes 1102
Pratylenchus brachyurus, soyabeans 786
Pratylenchus neglectus, lucerne 146
Pratylenchus penetrans, lucerne 146
Radopholus similis, Piper nigrum 450
Rotylenchulus reniformis
cauliflowers 132
Solanum melongena 733
tomatoes 131, 733
Rotylenchus, Lilium henryi 144
Pathotypes
Bursaphelenchus xylophilus, Pinus 681
Globodera pallida 155, 246, 660, 672, 890
Globodera rostochiensis 155, 246, 660, 672, 890
Heterodera avenae, cereals, France 458
Heterodera schachtii 938
Pawpaws, plant parasitic nematodes 907
Peach rosette mosaic virus
Longidorus breviannulatus, transmission 963
Longidorus diadecturus, transmission 963
Xiphinema americanum, grapes, transmission 973
Peaches
Criconemella, USA 136
Criconemella xenoplax
DD 863
fenamiphos 862-863
Fusarium oxysporum, interactions 618
Fusarium solani, interactions 618
prophos 862
resistance 120
Meloidogyne, resistance 120
Meloidogyne incognita, resistance 101, 436
Xiphinema diversicaudatum
Arabis mosaic virus, transmission 56
viruses, transmission 974
Pears
Aglenchus andrassyi, n.sp., India 670
Pratylenchus crenatus
pathogenicity 1077
resistance 1077
Pratylenchus neglectus
pathogenicity 1077
resistance 1077
Peas
Filenchus spiculatus, n.sp., India 670
Heterodera goettingiana, life history 1098
Meloidogyne incognita
aldicarb 1169
carbofuran 1169
fensulfothion 1169
mephosfolan 1169
Peat soils, free living nematodes, France 781
Pelargonium graveolens
Helicotylenchus dihystera
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512
Meloidogyne hapla
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512

***Pelargonium graveolens* cont.**
Scutellonema conicephalum
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512
***Pellioditis marina*,** cadmium, toxicity 365
Pelodera
soil
chlordane, toxicity 518
oxamyl, toxicity 518
***Peltamigratus*,** keys 630
***Peltamigratus amazonensis*,** n.sp., *Vigna unguiculata*, Brazil 630
***Peltamigratus areolatus*,** n.sp., maize, Brazil 630
***Peltamigratus cerradoensis*,** n.sp., *Diospyrus hispida*, Brazil 630
***Peltamigratus christiei*,** Brazil, morphology 630
***Peltamigratus holdemani*,** Brazil, morphology 630
***Peltamigratus ibiboca*,** Brazil, morphology 630
***Peltamigratus levicaudatus*,** n.sp., rice, Brazil 630
***Peltamigratus nigeriensis*,** Brazil, morphology 630
***Peltamigratus paraensis*,** n.sp., *Guilielma speciosa*, Brazil 630
***Peltamigratus raskii*,** n.sp., grasses, Brazil 630
***Pennisetum americanum*,** plant parasitic nematodes, organic fertilizers 215
***Pentatomimermis*,** *Nezara viridula*, India, new host record, prevalence 333
Peru, *Meloidogyne incognita*, ova, *Paecilomyces lilacinus*, biological control agent 223
Pesticides, books 561, 1200
***Petunia alba*,** *Meloidogyne*, India 925
***Petunia hybrida*,** *Xiphinema vuittenezi*, experimental model, virus transmission 760
Phaseolus lunatus
Helicotylenchus microcephalus
aldicarb 499
carbofuran 499
isazophos 499
new host record 499
oxamyl 499
Meloidogyne javanica
aldicarb 499
carbofuran 499
Helicotylenchus microcephalus, *Pratylenchus sefaensis*, interactions, effect of rainfall 499
isazophos 499
oxamyl 499
Pratylenchus sefaensis
aldicarb 499
carbofuran 499
isazophos 499
oxamyl 499
Phaseolus vulgaris
Meloidogyne hapla, pathogenicity, resistance 721
Meloidogyne incognita
Macrophomina phaseolina, interactions 349
pathogenicity 1066
pathology 1065
Phaulacridium vittatum
Mermis quirindiensis, n.sp., Australia 985
Mermithidae, Australia 332
Phenolic compounds, *Meloidogyne incognita* 224
4-Phenylazophenol derivatives, *Panagrellus redivivus* 828
***Pheromermis rubzovi*,** n.sp., *Therioplectes carabagensis*, USSR 983
***Pheromermis vernalis*,** Tabanidae, USSR, redescribed 983
***Pheromermis zaamini*,** Tabanidae, USSR, redescribed 983
***Phialophora gregata*,** *Heterodera glycines*, soyabeans 966
Philippines, *Meloidogyne incognita*, biological control, nematophagous fungi 529
***Phleum*,** *Anguina agrostis*, host reaction 1063
***Phleum pratense*,** *Pratylenchus sensillatus*, n.sp., Canada 369
Phorate
Helicotylenchus dihystera, *Pelargonium graveolens* 512
Meloidogyne hapla, *Pelargonium graveolens* 512
Meloidogyne incognita, *Piper betle* 216
plant parasitic nematodes
sugarcane 849
triticale 1130
Pratylenchus thornei, *Cicer arietinum* 878
Scutellonema conicephalum, *Pelargonium graveolens* 512
Phosphomidon, *Hirschmanniella mucronata*, rice 857
Phylogeny
Atalodera 1003
Heteroderidae 412
Thecavermiculatus 1003
Tylenchida 290, 982
Physiology
Acrobeloides nanus 371
Adoncholaimus 766
Anoplostoma 766
Aphelenchus avenae 471
Caenorhabditis briggsae 1085
Caenorhabditis elegans 166, 258, 465, 472, 767
Chiloplacus minimus 371
Diplolaimella chitwoodi 358
Ditylenchus dipsaci 774
Eleutherolaimus 766
Globodera rostochiensis 1083, 1092, 1095
Heterodera ciceri 1086
Heterodera schachtii 157, 1082
Heterorhabditis 161
Heterorhabditis bacteriophora 769
Hirschmanniella oryzae 751
marine nematodes 362-363
Meloidogyne 1081
Meloidogyne arenaria 179
Meloidogyne artiellia 467
Meloidogyne chitwoodi 158
Meloidogyne hapla 157
Meloidogyne incognita 162, 179
juveniles 156
Monhystera disjuncta 159, 365
Monhystera microphthalma 365
Neoaplectana 161, 163
Neoaplectana carpocapsae 763-764
Panagrellus redivivus 1087
Pellioditis marina 365
plant parasitic nematodes 167, 759
Pratylenchus brachyurus 395
Pratylenchus crenatus 671
Pratylenchus penetrans 671
Pratylenchus thornei 671
Pratylenchus zeae 395
Rhabditis oxycerca 1085
Romanomermis culicivorax 772
Rotylenchulus reniformis 761
Tobrilus 766
Turbatrix aceti 154, 771
Xiphinema index 151
Phytotoxicity, ethylene dibromide, sugarcane 851
***Picea*,** plant parasitic nematodes, USSR, seasonal variations 581
***Picea pungens*,** *Bursaphelenchus xylophilus*, pathogenicity 1068
***Pierrickia microseta*,** synonymy 84
Pineapples
plant parasitic nematodes, Hawaii, control 317
Pratylenchus brachyurus, Ivory Coast, intercropping 1116
Rotylenchulus reniformis, Hawaii, control 317
Pinus
Bursaphelenchus mucronatus, China 92
Bursaphelenchus xylophilus
China 92
control 921
geographical distribution 921
life history 921
***Pinus* cont.**
Bursaphelenchus xylophilus cont.
losses 921
metam-ammonium 524, 869
Monochamus alternatus, Japan 962
pathogenicity 1068
water stress 145
pathotypes 681
resistance
ethylene production 698
immobilization substance 680
USA 749
Cryptaphelenchoides propora, n.sp., China 92
Cylindrotylenchus pini, n.g., n.sp., China 92
entomophilic nematodes, *Dendroctonus ponderosa*, USA 952
***Pinus banksiana*,** *Bursaphelenchus xylophilus*, Canada, mistletoe 296
Pinus densiflora
Bursaphelenchus mucronatus, pathology 740
Bursaphelenchus xylophilus
Japan, host mortality 728
Monochamus alternatus, Japan, transmission 48
pathogenicity 735
bacterial contamination 459
light 1061
pathology 739-740
Pinus pallasiana
Helicotylenchus ryzhikovi, n.sp., USSR 650
Tylenchorhynchus pini, n.sp., USSR 650
Pinus radiata
Bursaphelenchus xylophilus, New Zealand 552
free living nematodes, soil, New Zealand 488
Pratylenchus penetrans, pathogenicity 134
Pinus sylvestris
Helicotylenchus ryzhikovi, n.sp., USSR 650
Malenchus tantulus, Sweden, new geographic record 307
plant parasitic nematodes, Sweden, distribution 307
Quinisulcius brevistyletus, n.sp., USSR 650
Tylenchorhynchus pini, n.sp., USSR 650
Pinus thunbergii
Bursaphelenchus xylophilus
Japan
forest influences, stream flow 125
host mortality 728
seasonal variation 193
pathogenicity 735
bacterial contamination 459
Piper betle
Helicotylenchus microcephalus, India 927
Meloidogyne incognita
aldicarb 216
carbofuran 216
control, *Tagetes erecta* 1159
India 927
organic fertilizers 1150
phorate 216
potassium sulphate 1151
resistance 1036
plant parasitic nematodes, India 927
Piper nigrum
Meloidogyne incognita
Brazil, pathogenicity 1058
Paecilomyces lilacinus, biological control agent 968
pathogenicity
amino acids 725
organic acids 725
resistance, phenols 106
Verticillium chlamydosporium, biological control agent 968
plant parasitic nematodes 907
Radopholus similis, pathology, histopathology 450

***Piper nigrum* cont.**
Trophotylenchulus piperis, n.sp., India 81
***Plagiobothrys stipitatus*, *Pratylenchus morettoi*, n.sp., USA 998**
***Plagiochasma appendiculatum*, *Tylenchus davainei*, India, new geographic record 377**
Plant parasitic nematodes
adaptations to parasitism, reviews 768
Agrostis palustris
fenamiphos 875
isofenphos 875
Aloe, USA 1055
apples, replanting 742
aquatic plants, USA, survey 302
Arachis hypogaea, books 562
Areca catechu 907
Argentina, surveys 948
aromatic plants, reports 551
aubergines
organic fertilizers 823-824
population dynamics, fertilizers 785
bananas 907
control, mulches 207
sampling techniques 892
barley, Tropics, reviews 323
Beta, resistance, host genetics 20
bibliography, Japan 912
biochemistry
pheromones, reviews 759
steroids, reviews 753
biological control, reviews 1166
books 285
morphology 292
Brazil, conferences 909
cabbage, USSR 24
Cajanus cajan, India 549
Capsicum frutescens
aldicarb 234
carbofuran 234
Tenekil 234
cardamoms 907
Carpinus betulus, USSR, seasonal variations 581, 588
Catharanthus roseus, India 551
Cicer arietinum
India 549
resistance 98
Citrus
aldicarb 505
biological control, USA, reviews 225
Cuba, survey 27
reviews 304
Cladonia glauca, Irish Republic, surveys 669
cocoa 907
coconuts 907
control 531
integrated pest management 1160
reviews 860
solar heating of soil 1139
cotton, control 506
crops
Africa, maps, distribution 913
Papua New Guinea
pathogenicity 295
surveys 295
Spain, irrigation 28
tropics, resistance, reviews 1041
USSR
natural foci 329, 597
research 818
cucumbers, USSR 24
cultural control 565-566
aubergines 823
green manures 1164
Cymbopogon, India 551
Cynodon dactylon
nematicides 527
pathogenicity 439
resistance 439
Dioscorea 907
Dioscorea rotundata
aldicarb 238
carbofuran 238
fensulfothion 238
ecology
discussed 1102
reviews, agroecosystems 783
Plant parasitic nematodes *cont.*
ecology *cont.*
tillage 1117
forest soils
Czechoslovakia, survey 191
USA, ecology 311
Yugoslavia, ecology 482
forest trees
India 314
USA 21
fruit trees
Bulgaria, prevalence 299
soil sickness 949
fruits, France, control, reviews 1137
fungi, barley, Canada 18
German Federal Republic, bibliographies 1197
grapes
control 842
nematicides 500
resistance 500
France, control, reviews 1137
India, reviews 128
Iraq 321
reviews 5
USSR, general account 833
Yugoslavia 926
grasses
Czechoslovakia
ecology 495
seasonal dynamics, rainfall 1124
German Democratic Republic, sward damage 140
USA, vertical distribution 484
USSR, general account 591
Hibiscus cannabinus, population dynamics, irrigation 784
Japan, general account 303
jute, population dynamics, irrigation 784
Leucaena leucocephala, Nigeria, alley cropping 550
Linum usitatissimum, USSR, prevalence 578
lucerne, USA, reviews 31
maize
aldicarb 830, 854
AR 150867 854
Broot 830, 854
carbofuran 830, 854
ecology 441
fenamiphos 830
FMC 67825 830
Prophos 854
resistance 441
subsoiling 798
terbufos 830
Terbufos 854
Tropics, reviews 323
UC 70480 854
UC 70667 854
UC 800017 830
UC 800027 854
medicinal plants, reports 551
Mentha, India 551
Meria coniospora, interactions 180
mulberries, Japan, surveys 325
nematophagous fungi, predation, trapping mechanisms 801
oats, Tropics, reviews 323
okra, population dynamics, fertilizers 785
onions 1202
orchard crops
control
nematicides 500
resistance 500
ornamental plants
control 1054
pathogenicity 1054
Paeonia lactiflora, Hungary, new geographic records 12
Passalidae, reviews 375
pastures, New Zealand, seasonal dynamics 497
pathology, discussed 1102
pawpaws 907
Pennisetum americanum, organic fertilizers 215
physiology, cryptobiosis 167
Picea, USSR, seasonal variations 581
Plant parasitic nematodes *cont.*
pineapples, Hawaii, control 317
Pinus sylvestris, Sweden, distribution 307
Piper betle, India 927
Piper nigrum 907
plants
Finland, quarantine 582
pathogenicity evaluation 141
Plutella xylostella, biological control agent 50
potatoes, USSR, crop rotations 243
Pseudomonas fluorescens, garlic 611
pulses, India, prevalence 6
Quercus
USA, ghost citrus groves 922
USSR, seasonal variations 581
reports, Netherlands 282
research status, general account 920
resistance testing 1035
reviews, feeding behaviour 463
Rhizoctonia solani, tomatoes, interactions 614
rice
books 289
control, flooding/draining 503
India 319
population dynamics 590
Tropics, reviews 323
Rumohra adiantiformis, USA, surveys 579
scanning electron microscopy 647
soil
control, reviews 1156
Czechoslovakia
soil amendments 1119
survey 191
distribution, moisture gradient 791
fertilizers, sewage sludge 1114
nematicides, application methods 1174
population dynamics 186
Spain, distribution, depth 481
USA
ecology 492
vertical distribution 484
USSR, ecology 181
Sorghum
Colombia, surveys 493
Tropics, reviews 323
soyabeans
Brazil, resistance 715
pesticide interactions 839
resistance, reviews 433
USA, genera account 309
storage techniques 1183
strawberries
Canada 932
vegetative propagation 942
studying techniques 894
sugarbeet
aldicarb 244
carbofuran 244
oxamyl 244
USSR, crop rotations 790
sugarcane
Brazil 326
control 851
minimum tillage systems 322
nematicides 849
prevalence 573
survey 313
Burkina Faso, nematicides, economic loss 448
cultural methods 813
Ivory Coast, nematicides, economic loss 448
methyl bromide 209
South Africa, pathogenicity 127
West Africa, pathogenicity 127
taxonomy, books 292
techniques, handling 1176
Trifolium alexandrinum, organic fertilizers 215
triticale
DBCP 1130
DD 1130
dimethoate 1130
fensulfothion 1130
organic fertilizers 1130
phorate 1130

Plant parasitic nematodes *cont.*
type specimens, collections 1002
ultrastructure, reviews 63
USA
check list 586
local survey 392
quarantine 923
vegetables
India, prevalence 6
Spain, check list 297
USSR 569
Vetiveria, India 551
weeds, USSR, natural foci 329, 597
wheat
Australia, aldicarb 866
dazomet 947
Libya 947
Tropics, reviews 323
USSR, monocultures, seasonal variations 571
Yugoslavia, maps 911
Zingiber 907
Plants
Ditylenchus
USSR
distribution, host range 33
general account 29, 32
Ditylenchus dipsaci, USSR, host range 23
Heteroderidae, USSR, check list, Tajik SSR 937
plant parasitic nematodes
Finland, quarantine 582
pathogenicity evaluation 141
Platanus, Neoaplectana carpocapsae, Synanthedon resplendens, USA, biological control organisms 956
Plectus amorphotelus, n.sp., Canada 378
Plectus cancellatus, redescribed 378
Plectus spicacaudatus, n.sp., Canada 378
Pleurotylenchus minor, n.sp., soil, USA 637
Pluchea lanceolata, Meloidogyne javanica, India, new host record 575
Plumbago zeylanica, Meloidogyne javanica, India, new host record 575
Plutella xylostella, plant parasitic nematodes, biological control agent 50
Poa pratensis, Meloidogyne microtyla, pathogenicity 745
Poland
Ditylenchus dipsaci
onions
aldicarb 1138
oxamyl 1138
triazophos 1138
Vicia faba 934
free living nematodes, reviews 567
Globodera rostochiensis, potatoes, control, resistant varieties 1042
Heterodera avenae, maize, prevalence 935
Longidoridae, distribution maps 915
Merlinius microdorus, maize, prevalence 935
Mermithidae, *Glyptotendipes gripekoveni* 38
Pratylenchus crenatus, maize, prevalence 935
Pratylenchus neglectus, maize, prevalence 935
Trichodoridae, distribution maps 915
Tylenchorhynchus dubius, maize, prevalence 935
Tylenchorhynchus vulgaris, maize, prevalence 935
Tylenchus thornei, maize, prevalence 935
Xiphinemidae, distribution maps 915
Pollution
1,3-dichloropropene, ground water 513
Diplolaimelloides bruciei, bioassays, heavy metals 366
free living nematodes
Australia 1104
water, India 1113
marine nematodes, India 195
Monhystera microphthalma, bioassays, heavy metals 366
Nematoda, toxicity testing 882
Population dynamics
Diplolaimella chitwoodi 358
Globodera rostochiensis 787
potatoes, resistance 789
Globodera solanacearum, tobacco 1027
Heterodera avenae
barley 1115
Raphanus sativus 1115
Heterodera glycines, soyabeans 491, 1027
Heterodera schachtii
barley 1115
Raphanus sativus 1115
sugarbeet, Finland 872
marine nematodes, France 360
Meloidogyne incognita 305
Ipomoea batatas 695
Merlinius brevidens, tomatoes 452
soyabeans 1045, 1125
Paratrichodorus pachydermus 778
Paratylenchus dianthus, carnations 487
plant parasitic nematodes
aubergines, fertilizers 785
Hibiscus cannabinus 784
jute 784
okra, fertilizers 785
rice, India 590
soil 186
Pratylenchus brachyurus
soyabeans 133
planting date 182
Pratylenchus sudanensis
cotton 1121
Psidium guajava 1121
Quinisulcius solani, potatoes, Pakistan 185
Radopholus similis, bananas 519
Rotylenchulus reniformis 305
Trichodorus primitivus 778
Xiphinema index 461
Populus angustifolia, Sphaeronema rumicis, USA, new geographic record 673
Portugal
Meloidogyne arenaria, tomatoes 62
Meloidogyne javanica, tomatoes 62
Portulaca grandifolia, Meloidogyne, India 925
Portulaca oleracea, Rotylenchulus reniformis, India, new host record 931
Portulaca quadrifida, Meloidogyne javanica, India, new host record 574
Potassium sulphate, *Meloidogyne incognita, Piper betle* 1151
Potatoes
Ditylenchus destructor
bacteria, bacterial rot 355
biochemistry, enzymes 137
pathology, starch hydrolysis 462
resistance 118
glycoalkaloids 117
USSR
control 200, 210
crop rotations 243
dry heat treatment 523
prevalence 427
resistance 427
Ditylenchus dipsaci, USSR, heterophos 530
Globodera, resistance 699
Globodera pallida
aldicarb 877
carbofuran, bog soils 1170
Europe, pathotype registration 672
France, resistance, reviews 1067
fungi, interactions 970
German Federal Republic, control, bog soils 1170
oxamyl, bog soils 1170
pathogenicity, water stress 1056
prophos, bog soils 1170
resistance 103, 432, 679, 877
Sweden, pathotypes 660, 703
UK, resistance, pathotypes 717
Globodera rostochiensis
aldicarb 838, 877
biochemistry, enzymes 137
control, resistant varieties 1021
1,3-dichloropropene 838
Europe, pathotype registration 672
Potatoes *cont.*
Globodera rostochiensis cont.
France, resistance, reviews 1067
fungi, interactions 970
German Federal Republic, resistance testing 1047
histology 743
oxamyl 838
Pakistan, surveys 580
pathogenicity, water stress 449, 1056-1057
Poland, control, resistant varieties 1042
population dynamics 788
resistance 789
resistance 118, 432, 434, 438, 700, 720, 877, 1184
solarization 838
Sweden, pathotypes 660, 703
UK, resistance, pathotypes 717
USSR, control 515, 819
Heterodera rostochiensis, Hungary, resistance 710
Longidoridae, Belgium, virus transmission 619
Meloidogyne
resistance 707
genetics 421
Meloidogyne chitwoodi, host parasite relationships, temperature 158
Meloidogyne hapla
ethylene dibromide 143
pathogenicity 143
Meloidogyne incognita, Streptomyces scabies, interactions 617
Merlinius bavaricus, Pakistan, new geographic record 584
metham sodium, distribution 208
Ottolenchus facultativus, Pakistan, new geographic record 654
Paratrichodorus, tobacco rattle virus, Belgium, prevalence 58
Paratrichodorus pachydermus
aldicarb 804
oxamyl 804
plant parasitic nematodes, USSR, crop rotations 243
Pratylenchus penetrans
pathogenicity 1064
resistance 704
USA, 1,3-dichloropropene 513
Quinisulcius solani, Pakistan, population dynamics 185
Trichodoridae, Belgium, virus transmission 619
Trichodorus, tobacco rattle virus, Belgium, prevalence 58
Trichodorus cylindricus
aldicarb 804
oxamyl 804
Trichodorus primitivus
aldicarb 804
oxamyl 804
Pratylenchoides, synonymy 997
Pratylenchoides laticauda, cucumbers, USSR, new geographic record 24
Pratylenchoides magnicaudoides, n.sp., *Orixa japonica*, Japan 388
Pratylenchus
bananas, India, survey 324
maize
carbofuran 236
DD 236
subsoiling 236
tobacco, Bulgaria, prevalence 294
Pratylenchus agilis
maize
pathogenicity 139
resistance 1046
soyabeans
pathogenicity 139
resistance 1046
tomatoes
pathogenicity 139
resistance 1046
Pratylenchus alleni, Helianthus annuus, resistance 1020
Pratylenchus brachyurus
Arachis hypogaea, general account 300
maize, resistance 696
morphology, effect of age 395

***Pratylenchus brachyurus* cont.**
pineapples, Ivory Coast, intercropping 1116
soyabeans
host damage 786
population dynamics, planting date 133, 182
Pratylenchus coffeae
Citrus, USA 304
coffee
aldicarb 240
carbofuran 240
carbosulfan 240
Colocasia esculenta
Japan
control 455
pathogenicity 455
ornamental plants, susceptibility 941
Pratylenchus crenatus
apples
pathogenicity 1077
resistance 1077
cherries
pathogenicity 1077
resistance 1077
evolution 671
maize, Poland, prevalence 935
pears
pathogenicity 1077
resistance 1077
physiology 671
ultrastructure, anterior sensilla 671
***Pratylenchus hexincisus*,** maize, cultural methods, tillage 806
***Pratylenchus loosi*,** tea, pathogenicity, temperature 451
***Pratylenchus morettoi*,** n.sp., *Plagiobothrys stipitatus*, USA 998
Pratylenchus neglectus
apples
pathogenicity 1077
resistance 1077
cherries
pathogenicity 1077
resistance 1077
lucerne, seedling emergence 146
maize, Poland, prevalence 935
pears
pathogenicity 1077
resistance 1077
Pratylenchus penetrans
apples
1,3-dichloropropene 845
metham sodium 845
crops, control, rotations 815
evolution 671
Fusarium oxysporum, lucerne, interactions 54
lucerne
carbofuran 440
resistance 440
seedling emergence 146
sowing date 440
Yugoslavia 54
physiology 671
Pinus radiata, pathogenicity 134
potatoes
pathogenicity 1064
resistance 704
USA, 1,3-dichloropropene 513
Pseudotsuga menziesii, fenamiphos 226
radishes
dazomet 232
DD 232
raspberries, New Zealand, fenamiphos 528
Rumohra adiantiformis, USA, surveys 579
rye, USA, 1,3-dichloropropene 513
strawberries, feeding behaviour 470
ultrastructure, anterior sensilla 671
Verticillium, interactions 620
Pratylenchus scribneri
culture techniques 1182
Helianthus annuus, resistance 1020
maize
carbofuran 874
FMC 67825 874
host parasite interactions 577
prophos 874
resistance 444
***Pratylenchus scribneri* cont.**
maize *cont.*
terbufos 874
UC 70480 874
UC 70667 874
soyabeans, interactions 732
Pratylenchus sefaensis
maize, population dynamics 780
Meloidogyne javanica
Helicotylenchus microcephalus, Phaseolus lunatus, interactions, effect of rainfall 499
Rotylenchulus reniformis
maize, interactions 780
Vigna unguiculata, interactions 780
Phaseolus lunatus
aldicarb 499
carbofuran 499
isazophos 499
oxamyl 499
soyabeans, USA, new geographic record 310
Vigna unguiculata, population dynamics 780
***Pratylenchus sensillatus*,** n.sp., *Phleum pratense*, Canada 369
Pratylenchus sudanensis
cotton, population dynamics 1121
Fusarium oxysporum, cotton, interactions 976
Psidium guajava, population dynamics 1121
Pratylenchus thornei
Cicer arietinum
aldicarb 878
carbofuran 878
fensulfothion 878
pathogenicity 149
phorate 878
evolution 671
physiology 671
ultrastructure, anterior sensilla 671
Pratylenchus vulnus
carbofuran 879
fenamiphos 879
oxamyl 879
subnematicidal stress 879
Pratylenchus zeae
fungi
Sorghum
Colombia, associations 612
USA, associations 612
maize, resistance 696
morphology, effect of age 395
sugarcane, Brazil, control 850
***Praxibulus, Mermis quirindiensis*,** n.sp., Australia 985
***Prochaetosoma brighti*,** n.sp., marine sediments, Mexico 380
Prochaetosoma vitielloi
marine sediments, Spain 387
morphology 387
***Prochromadorella cobbiana*,** to *Chromadorella cobbiana*, n.comb. 631
***Prochromadorella papillata*,** n.sp., marine sediments, Mexico 380
***Prodolichorhynchus elegans*,** n.g., n.comb., for *Dolichorhynchus elegans* 645
Prodorylaimus
Citrus, Nigeria, morphology 386
synonymy 386
taxonomy 386
***Prodorylaimus acris*,** morphology 386
***Prodorylaimus andrassyi*,** n.comb., for *Afrodorylaimus andrassyi* 386
***Prodorylaimus dahli*,** morphology 386
***Prodorylaimus dalmassoi*,** n.sp., soil, France 386
***Prodorylaimus filiarum*,** morphology 386
***Prodorylaimus longicaudatoides*,** morphology 386
***Prodorylaimus mas*,** n.sp., soil, Netherlands 386
Prodorylaimus nyongi
morphology 386
n.comb., for *Dorylaimus nyongi* 386
***Prodorylaimus paralongicaudatus*,** morphology 386
***Prodorylaimus picardi*,** morphology 386
***Prodorylaimus ranzii*,** n.comb., for *Afrodorylaimus ranzii* 386
***Prodorylaimus renwicki*,** morphology 386
***Prodorylaimus rionensis*,** morphology 386
***Prodorylaimus rotundiceps*,** n.sp., soil, Netherlands 386
***Prodorylaimus uliginosus*,** n.sp., soil, Netherlands 386
Prophos
Belonolaimus longicaudatus
Cynodon dactylon 844
maize 520
Criconemella xenoplax, peaches 862
Ditylenchus dipsaci, garlic 864
Globodera pallida, potatoes 1170
Hoplolaimus galeatus, maize 520
Meloidogyne arenaria, Arachis hypogaea 521, 821
Meloidogyne hapla, Arachis hypogaea 855
Paratrichodorus minor, Cynodon dactylon 844
plant parasitic nematodes, maize 854
Pratylenchus scribneri, maize 874
***Prosimulium kiotoense*,** Mermithidae, Japan 35
***Proteodes carnifex*,** entomophilic nematodes, New Zealand 344
Protozoa, *Longidorus elongatus*, Italy, interactions 352
Prunus
Meloidogyne incognita, resistance 1038
Meloidogyne javanica, resistance 1038
***Prunus amygdalus, Heterodera zea*,** Pakistan, new host record 943
Pseudaletia unipuncta
Heterorhabditis, Xenorhabdus, interactions 354
Neoaplectana, Xenorhabdus, interactions 354
***Pseudhalenchus insolitus*,** n.sp., cucumbers, USSR 82
***Pseudocella karensis*,** n.sp., Kara Sea 397
***Pseudocella tenuis*,** Kara Sea, described 397
***Pseudomonas fluorescens*,** plant parasitic nematodes, garlic 611
***Pseudomonas solanacearum, Meloidogyne incognita*,** ginger, interactions 977
Pseudosteineria
diagnosis 379
keys 379
***Pseudosteineria inaequispiculata*,** Sea of Japan, morphology 379
***Pseudosteineria sagittispiculata*,** n.sp., Sea of Japan 379
***Pseudotsuga menzezii, Bursaphelenchus xylophilus*,** pathogenicity 1068
***Pseudotsuga menziesii, Pratylenchus penetrans*,** fenamiphos 226
Psidium guajava
Helicotylenchus dihystera, South Africa 748
Pratylenchus sudanensis, population dynamics 1121
***Psoralea corylifolia, Meloidogyne javanica*,** India, new host record 575
***Psorophora columbiae, Romanomermis culicivorax*,** susceptibility, temperature 608
Pteris vittata
Helicotylenchus borinquensis, India, new host/geographic record 377
Helicotylenchus varicaudatus, India, new geographic record 377
Quinisulcius curvus, India, new host record 377
***Pterotylenchus cecidogenus, Desmodium ovalifolium*,** host parasite relationships 744
***Ptycholaimellus pandispiculatus*,** sea water, USA, species patterns 357
Ptycholaimellus setosus
n.sp.
marine sediments, Argentina 91
seaweeds, Argentina 91
Puerto Rico
Meloidogyne incognita, cucumbers, control 1128
Radopholus similis, host range 316

Puerto Rico *cont.*
Rotylenchulus reniformis, cucumbers, control 1128
Pulses, plant parasitic nematodes, India, prevalence 6
Punctodera, morphology 412
Punctoderinae
keys 412
taxonomy 412
Pungentus, grasses, ecology, nitrogen 497
Pythium aphanidermatum, Meloidogyne incognita, Capsicum annuum, interactions 969
Quarantine
plant parasitic nematodes
Finland 582
USA 923
Qudsianematidae
keys 559
taxonomy, books 559
Quercus
plant parasitic nematodes
USA, ghost citrus groves 922
USSR, seasonal variations 581
Quercus faginea, Longidorus unedoi, n.sp., Spain 984
Quercus ilex, Longidorus aetnaeus, n.sp., Italy 1007
Quinalphos
Helicotylenchus dihystera, Pelargonium graveolens 512
Meloidogyne hapla, Pelargonium graveolens 512
Scutellonema conicephalum, Pelargonium graveolens 512
Quinisulcius acutus
Citrus, Cuba, new geographic record 27
fungi
Sorghum
Colombia, associations 612
USA, associations 612
Quinisulcius brevistyletus, n.sp., *Pinus sylvestris*, USSR 650
Quinisulcius curvus, Pteris vittata, India, new host record 377
Quinisulcius solani, potatoes, Pakistan, population dynamics 185
Radishes
Heterodera schachtii
control, resistant varieties 1136
German Democratic Republic, resistance 445
German Federal Republic, pathotypes 938
Hirschmanniella oryzae 464
Pratylenchus penetrans
dazomet 232
DD 232
Radopholus citrophilus
Anthurium, resistance 688
Citrus
resistance 692
USA 304
Musa, resistance 688
Radopholus similis
banana fruit callus 245
bananas
India, prevalance 324
population dynamics 519
Citrus, control 231
life history 169
oogenesis 268
Piper nigrum, pathology, histopathology 450
Puerto Rico, host range 316
reproduction 169
Ransomnema paraguayense, n.sp., *Rhinocricus bernardinensis*, Paraguay 627
Rape
Heterodera avenae, German Federal Republic, population levels 1167
Heterodera schachtii, German Democratic Republic, resistance 445
Raphanus sativus
Heterodera avenae, population dynamics 1115
Heterodera schachtii
hatching 466
population dynamics 1115
Raphanus sativus *cont.*
Heterodera schachtii cont.
resistance 112, 684
reviews 1023
trap crops 221
Meloidogyne, Pakistan, new host record 17
Raphidioptera, Mermithidae, reviews 34
Raspberries
Pratylenchus penetrans, New Zealand, fenamiphos 528
Xiphinema americanum, USSR, control, antagonistic plants 807
Raspberry ring spot virus, *Longidorus macrosoma*, cherries, Switzerland, prevalence, altitude 971
Rats, toxicity, aldicarb 1141
Reports
Central Institute of Medicinal Aromatic Plants, India 551
Central Plantation Crops Research Institute, India 907
Central Plantation Crops Research Institute, India 281
Coffee Board Research Department, India 277
Department of Agriculture, Northern Ireland 595
Department of Agriculture, South Africa 278
East Malling Research Station, UK 275-276, 279-280
International Potato Center, Peru 283
nematicides 904
New Zealand Forest Research Institute 552
Northern Ireland, Department of Agriculture 1198
plant parasitic nematodes
aromatic plants 551
medicinal plants 551
Netherlands 282
Rothamsted Experimental Station, UK 905
South African Sugar Association Experiment Station 553
Tea Research Institute, Sri Lanka 548
Zimbabwe, Tobacco Research Board 908
Reproduction
Bursaphelenchus xylophilus 762
Caenorhabditis briggsae 1085
Caenorhabditis elegans 895, 902, 1190
free living nematodes, soil 492
Hammerschmidtiella diesingi 335
Heterorhabditis bacteriophora 769, 990
Leidynema appendiculata 335
marine nematodes 363, 1005
Meloidogyne microtyla 745
Obainia petteri 367
plant parasitic nematodes, soil 492
Pratylenchus brachyurus 696
Pratylenchus zeae 696
Radopholus similis 169, 268
Rhabditis oxycerca 1085
Rotylenchulus reniformis 160, 476
Xiphinema diversicaudatum, geographical populations 1080
Xiphinema index, effect of host 151
Resistance
Anguina tritici, wheat 115
Bidera avenae, wheat 702
Bursaphelenchus xylophilus
forest trees 429
Pinus 681, 698
immobilization substance 680
Criconemella xenoplax, peaches 120
Ditylenchus destructor
potatoes 118, 427
glycoalkaloids 117
Solanum
glycoalkaloids 117
USSR 100
Ditylenchus dipsaci
clovers 417
garlic 8, 123
USSR 124
legumes, France 1022
lucerne 415, 417
oats, Belgium, reviews 1024
onions 123
Resistance *cont.*
Ditylenchus dipsaci cont.
Trifolium pratense 107
vegetables 423
evolution 693
Globodera, potatoes 699
Globodera pallida
potatoes 103, 432, 679, 717, 758, 877
France, reviews 1067
Globodera rostochiensis
potatoes 118, 432, 434, 438, 700, 717, 720, 758, 789, 819, 877, 1021, 1042, 1047, 1184
France, reviews 1067
tomatoes 111
Globodera solanacearum, tobacco 1027
Helicotylenchus dihystera, Helianthus annuus 1020
Helicotylenchus pseudorobustus, Helianthus annuus 1020
Heterodera avenae
barley 105, 456
larval penetration 425
cereals 458, 713
oats 419, 712
Belgium, reviews 1024
Heterodera cajani
Atylosia 549
Dunbaria 549
Flemingia 549
Rhynchosia 549
Heterodera glycines
Cleome spinosa 1040
Helianthus annuus 1020
Lespedeza striata 1040
soyabeans 113, 428, 443, 677-678, 682, 686, 1018, 1027, 1040
Heterodera rostochiensis, potatoes 710
Heterodera schachtii
beet 418
reviews 1023
Beta vulgaris 1037
mustard 445, 1136
radishes 445, 1136
rape 445
Raphanus sativus 112, 684
reviews 1023
Sinapis alba 112
reviews 1023
Hoplolaimus aegypti, cotton 694, 837
Hoplolaimus galeatus, Cynodon dactylon 439
Meloidogyne
aubergines 421
Cajanus cajan 549
Capsicum annuum 421, 426
Medicago sativa 97
peaches 120
potatoes 421, 707
Solanaceae, reviews 1025
tobacco 116, 888-889
tomatoes 109, 251, 421, 1019
Trifolium alexandrinum 97
Trifolium incarnatum 97
Trifolium vesiculosum 97
vegetables 99, 423
Vigna unguiculata 708
Meloidogyne acrita, tomatoes 442
Meloidogyne arenaria
Alysicarpus 1052
clovers 709
Helianthus annuus 1020
lucerne 416
soyabeans 689
tomatoes 442
Meloidogyne chitwoodi, lucerne 1059
Meloidogyne exigua, weeds 583
Meloidogyne hapla
carrots 701
Cassia fasciculata 705
Helianthus annuus 1020
lucerne 1059
Phaseolus vulgaris 721
Rosa 420
Vicia cordata 705
Vicia grandiflora 705
Vicia sativa 705
Vicia villosa 705
Meloidogyne incognita 353
Alysicarpus 1052

Resistance *cont.*
Meloidogyne incognita cont.
Arachis hypogaea 719
aubergines 94, 722
Capsicum annuum 1028
Carica papaya 126
Cicer arietinum 122
Clitoria ternatea 1032
clovers 709
Cyamopsis tetragonoloba 1026
Dioscorea 95
Fusarium, cotton 1048-1049
Fusarium oxysporum
Albizia julibrissin 430
cotton 1051
grapes 104
Helianthus annuus 114, 1020
Hibiscus esculentus 722
Ipomoea batatas 424, 695, 1044
Leucaena 1050
Leucaena leucocephala 1031
lucerne 416
maize 719
Manihot esculenta 431
onions 1039
peaches 101, 436
Piper betle 1036
Piper nigrum 725
phenols 106
Prunus 1038
rice 683
Sesbania grandiflora 1031
Solanum sisymbrifolium 94
soyabeans 689, 718, 1045, 1053
sugarcane 714, 1043
tobacco 816
tomatoes 102, 119, 435, 442, 719, 722, 1072
oxidative enzymes 96
Vigna aconitifolius 687
Vigna mungo 1029
Vigna radiata 422, 1029
Vigna unguiculata 437, 711, 719, 1029
Meloidogyne javanica
Alysicarpus 1052
Cajanus cajan 1017
carrots 1034
Cicer arietinum 108
clovers 709
Desmodium ovalifolium 1033
Fusarium oxysporum
Albizia julibrissin 430
Vigna unguiculata 718
Helianthus annuus 114, 1020
Ipomoea batatas 424
Leucaena 1050
lucerne 416
Prunus 1038
sugarcane 1043
tobacco 685, 690-691, 816, 908
tomatoes 716
Meloidogyne naasi
Aegilops 706
wheat 706
plant parasitic nematodes
Beta, host genetics 20
Cicer arietinum 98
crops, tropics, reviews 1041
Cynodon dactylon 439
Leucaena leucocephala 550
maize 441
soyabeans 715
reviews 433
sugarcane 448, 573
testing 1035
Pratylenchus agilis
maize 1046
soyabeans 1046
tomatoes 1046
Pratylenchus alleni, *Helianthus annuus* 1020
Pratylenchus brachyurus, maize 696
Pratylenchus coffeae, ornamental plants 941
Pratylenchus crenatus
apples 1077
cherries 1077
pears 1077
Pratylenchus neglectus
apples 1077
Resistance *cont.*
Pratylenchus neglectus cont.
cherries 1077
pears 1077
Pratylenchus penetrans
lucerne 440
potatoes 704
Pratylenchus scribneri
Helianthus annuus 1020
maize 444
Pratylenchus zeae, maize 696
Radopholus citrophilus
Anthurium 688
Citrus 692
Musa 688
Rotylenchulus reniformis
Helianthus annuus 114
Ipomoea batatas 1044
Solanum melongena 733
tomatoes 733-734
phenolic content 697
weeds 572
Subanguina picridis, weeds 596
Reviews
biological control, Chile 533
Bursaphelenchus xylophilus 921
Caenorhabditis elegans 262
aging 468
biochemistry, steroids 753
genetics 897-898
muscle development 273
neuronal connectivity 166
control, cultural methods 918
Ditylenchus dipsaci
legumes, resistance 1022
oats, Belgium, resistance 1024
entomophilic nematodes, biological control agents 39
free living nematodes
biochemistry, pheromones 759
Poland 567
Globodera pallida, potatoes, France, resistance 1067
Globodera rostochiensis, potatoes, France, resistance 1067
Helicotylenchus multicinctus, bananas 919
Heterodera avenae
cereals
pathogenicity 1071
resistance 1071
oats, Belgium, resistance 1024
Heterodera schachtii
beet, resistance 1023
Raphanus sativus, resistance 1023
Sinapis alba, resistance 1023
weeds, German Federal Republic 924
marine nematodes 363
marine sediments, ecology 171
productivity 362
Meloidogyne, Solanaceae, resistance 1025
Mermithidae
biological control organisms 345
Raphidioptera 34
nematicides, UK 1201
plant parasitic nematodes
adaptations to parasitism 768
barley, Tropics 323
biochemistry
pheromones 759
steroids 753
biological control 1166
Citrus 304
biological control, USA 225
conservation tillage 565
control 860, 1160
crops, tropics, resistance 1041
ecology 783
feeding behaviour 463
fruits, France, control 1137
grapes 5
France, control 1137
India 128
lucerne, USA 31
maize, Tropics 323
oats, Tropics 323
ornamental plants 1054
Passalidae 375
pineapples 317
Reviews *cont.*
plant parasitic nematodes *cont.*
rice, Tropics 323
soil, control 1156
soil amendments 566
Sorghum, Tropics 323
soyabeans, resistance 433
ultrastructure 63
wheat, Tropics 323
Rhabditis, nematophagous fungi, chemotaxis 812
Rhabditis conica, synonym of *Rhabditis parateres* 405
Rhabditis dolichuroides, n.sp., Scarabaeidae, Kenya 64
Rhabditis oxycerca
reproduction
lathyrogenous agents 1085
piperonyl butoxide 1085
Rhabditis parateres, synonymy 405
Rhadinopsylla pentacantha, Incurvinema helicoides, n.g., n.sp., France 376
Rhigonema erringtoni, n.sp., Sphaeroteroidea, Malaysia 1013
Rhigonema subulata, morphology 627
Rhigonematida
life history 627
morphology, cladistics 368
Rhinocricus bernardinensis
Carnoya mackintoshae, n.sp., Paraguay 627
Heth clunyi, n.sp., Paraguay 627
Heth magnavulvaris, n.sp., Paraguay 627
Heth parartigasi, n.sp., Paraguay 627
Ransomnema paraguayense, n.sp., Paraguay 627
Thelastoma dessetae, n.sp., Paraguay 628
Rhips anoxybiotica, n.sp., marine sediments, Mexico 380
Rhizoctonia solani
Meloidogyne incognita
Capsicum annuum, interactions 969
tomatoes, interactions 353
plant parasitic nematodes, tomatoes, interactions 614
Rhizonema, synonym of *Sarisodera* 412
Rhizonema sequoiae, morphology 661
Rhododendron
Aphelenchoides fragariae
aldicarb 1148
oxamyl 1148
Rhynchosia, Heterodera cajani, resistance 549
Rice
Amphimermis unka, insects, associations 41
Aphelenchoides besseyi, USSR, control, seeds 856
Hirschmanniella gracilis, carbofuran 201
Hirschmanniella mucronata
carbosulfan 857, 1163
isofenphos 857, 1163
phosphomidon 857
Meloidogyne arenaria, USA, morphometrics 652
Meloidogyne exigua, USA, morphometrics 652
Meloidogyne hapla, USA, morphometrics 652
Meloidogyne incognita
resistance 683
USA, morphometrics 652
Meloidogyne salasi
n.sp.
Costa Rica 78, 652
Panama 78
Paralongidorus australis
Australia
anhydrobiosis 1123
surveys 594
n.sp., Australia 404
pathogenicity 404
Peltamigratus levicaudatus, n.sp., Brazil 630
plant parasitic nematodes
books 289
control, flooding/draining 503
India 319

Rice *cont.*
plant parasitic nematodes *cont.*
India *cont.*
population dynamics 590
Tropics, reviews 323
Tylenchorhynchus annulatus, Australia 594
Tylenchus hayati, n.sp., India 382
Xiphinema oryzae, n.sp., Nigeria 370
***Ricinus communis*, *Rotylenchulus reniformis*,** host nutrition 160
River water
free living nematodes, Australia, pollution indicators 1104
Mermithidae, Australia, pollution indicators 1104
Tobrilus diversipapillatus, Australia, pollution indicators 1104
Romanomermis culicivorax
Aedes vexans, pathogenicity 337
Culex quinquefasciatus
floating bioassay container 49
physiology, density dependent sex determination 772
intraspecific competition 1111
Psorophora columbiae, susceptibility, temperature 608
Root crops, *Rotylenchulus reniformis*, China 93
***Roqueus heterurus*,** n.comb., for *Paradorylaimus heterurus* 651
Rosa
Meloidogyne hapla
control
nematicides 811
soil steaming 811
resistance 420
Rotations
Ditylenchus destructor, potatoes, USSR 243
Ditylenchus dipsaci, strawberries 110
Globodera rostochiensis, potatoes 819
Heterodera avenae
cereals 175
German Federal Republic 1167
wheat, Sweden 516
Heterodera schachtii
beet 1023
German Federal Republic 1135
sugarbeet 840, 872
German Democratic Republic 1144
Longidorus elongatus, sugarbeet 242
Meloidogyne
Panicum maximum 230
vegetables 230
Meloidogyne arenaria, *Arachis hypogaea* 1154
Meloidogyne incognita 815
Meloidogyne javanica
Capsicum 1161
melons 1161
tomatoes 1152, 1161
plant parasitic nematodes
maize 550
tobacco 908
USSR 790
Pratylenchus penetrans 815
Rotylenchulus borealis
Ipomoea batatas, pathogenicity 147
maize, pathogenicity 147
***Rotylenchulus parvus*,** sugarcane, pathogenicity 147
Rotylenchulus reniformis
Aldabra 69
bananas
histology 148
India, survey 324
interactions 148
cauliflowers, pathology 132
cereals, China 93
crops, India 930
cucumbers, Puerto Rico, control 1128
development 160
distribution 11
hatching factors 761
Helianthus annuus, resistance 114
Ipomoea batatas, resistance 1044
legumes, China 93
maize, population dynamics 780
Rotylenchulus reniformis* *cont.
Meloidogyne incognita
tomatoes, interactions 305
Tylenchorhynchus brassicae, interactions 1112
morphology 11, 69
pineapples, Hawaii, control 317
Portulaca oleracea, India, new host record 931
Pratylenchus sefaensis
Meloidogyne javanica
maize, interactions 780
Vigna unguiculata, interactions 780
reproduction 160
Ricinus communis, host nutrition 160
root crops, China 93
Solanum melongena, pathology, amino acid content 733
tobacco, pathogenicity 1070
tomatoes
development 476
pathogenicity, age resistance 734
pathology 131
amino acid content 733
resistance 697
phenolic content 697
vegetables, China 93
Vigna unguiculata, population dynamics 780
weeds, Brazil, susceptibility 572
Rotylenchus
Lilium henryi, pathology, fasciation, genetics 144
numerical taxonomy 413
***Rotylenchus alii*,** n.sp., apples, Pakistan 1000
***Rotylenchus cypriensis*,** apples, Pakistan, new geographic record 1000
***Rotylenchus fragaricus*,** n.sp., strawberries, Pakistan 1000
***Rotylenchus impar*,** n.comb., for *Scutellonema impar* 641
***Rotylenchus incisicaudatus*,** n.comb., for *Scutellonema incisicaudatum* 641
***Rotylenchus insularis* n.comb.,** for *Scutellonema insulare* 641
***Rotylenchus laeviflexus*,** n.comb., for *Scutellonema laeviflexum* 641
***Rotylenchus magnus*,** n.sp., *Betula*, Spain 1016
***Rotylenchus mesorobustus*,** n.sp., *Cytisus scoparius*, Spain 1016
***Rotylenchus minutus*,** n.comb., for *Scutellonema minutum* 641
Rotylenchus pakistanensis
n.sp.
apples, Pakistan 1000
grapes, Pakistan 1000
***Rotylenchus robustus*,** UK, localized spread 1106
***Rubus fruticosus*, *Xiphinema barense*,** n.sp., Italy 994
***Rumex acetocella*, *Meloidogyne javanica*,** India, new geographical record 308
Rumohra adiantiformis
plant parasitic nematodes, USA, surveys 579
Pratylenchus penetrans, USA, surveys 579
Tylenchorhynchus claytoni, USA, surveys 579
Rye
Heterodera schachtii, Finland, rotations 872
Pratylenchus penetrans, USA, 1,3-dichloropropene 513
***Sabanguina millefolii*,** to *Mesoanguina millefolii*, n.g., n.comb. 633
Sabatieria
keys 84
morphology 84
taxonomy 85
revised 84
***Sabatieria breviseta*,** morphology 85
***Sabatieria celtica*,** morphology 85
***Sabatieria elongata*,** morphology 85
***Sabatieria fibulata*,** to *Setosabatieria fibulata*, n.comb. 84
***Sabatieria longispinosa*,** morphology 85
***Sabatieria microseta*,** synonym of *Pierrickia microseta* 84
***Sabatieria punctata*,** morphology 85
***Saintpaulia*, *Aphelenchoides ritzemabosi*,** control 510
***Salix*, *Californidorus clavicaudatus*,** n.sp., USA 400
Salsola richteri
Leipotylenchus secalis, n.sp., USSR 648
Meloidogyne turkestanica, n.sp., USSR 88
***Salvia sclarea*, *Meloidogyne javanica*,** India, new host record 575
Sarisodera
morphology 412
synonymy 412
***Sarisodera africana*,** to *Afrodera africana*, n.g., n.comb. 412
***Sarisodera hydrophila*,** morphology 661
Scarabaeidae
Neoaplectana glaseri
sugarcane, Australia, biological control 961
Xenorhabdus nematophilus poinarii 951
Rhabditis dolichuroides, n.sp., Kenya 64
Schubartnematinae
keys 375
taxonomy 375
***Scirpus wicherai*, *Cephalenchus potamophilus*,** n.sp., Japan 658
***Sclerolabia africana*,** n.g., n.sp., soil, Cameroon 374
***Sclerolabia camerunensia*,** n.g., n.sp., grasses, Cameroon 374
***Sclerolabia indica*,** n.comb., for *Willinema indicum* 374
***Sclerolabia jamaicensia*,** n.g., n.sp., soil, Jamaica 374
***Sclerolabia minima*,** n.g., n.sp., *Theobroma cacao*, Brazil 374
***Sclerotium rolfsii*, *Meloidogyne incognita*,** tomatoes, interactions 353
Scutellonema
emended 641
morphology 641
redescribed 641
***Scutellonema aberrans*,** synonym of *Scutellonema clathricaudatum* 641
***Scutellonema amabile*,** incertae sedis 641
***Scutellonema bangalorense*,** synonym of *Scutellonema brachyurus* 641
***Scutellonema bizanae*,** synonymy 641
***Scutellonema brabanum*,** sp. inq. 641
Scutellonema brachyurum
Aloe vera, pathogenicity 1055
ultrastructure, spicules 90
***Scutellonema brachyurus*,** synonymy 641
Scutellonema cavenessi
Arachis hypogaea
DBCP 1142
metham sodium 1142
Senegal, fallow 817
***Scutellonema clathricaudatum*,** synonymy 641
***Scutellonema commune*,** synonymy 641
***Scutellonema conicaudatum*,** synonym of *Scutellonema brachyurus* 641
Scutellonema conicephalum
Pelargonium graveolens
aldicarb 512
carbofuran 512
phorate 512
quinalphos 512
***Scutellonema dentivagina*,** synonym of *Scutellonema commune* 641
***Scutellonema eclipsi*,** synonym of *Scutellonema grande* 641
***Scutellonema grande*,** synonymy 641
***Scutellonema impar*,** to *Rotylenchus impar*, n.comb. 641
***Scutellonema incisicaudatum*,** to *Rotylenchus incisicaudatus*, n.comb. 641
***Scutellonema insulare*,** to *Rotylenchus insularis* n.comb. 641
***Scutellonema laeviflexum*,** to *Rotylenchus laeviflexus*, n.comb. 641

Scutellonema mangiferae, synonym of *Scutellonema grande* 641
Scutellonema minutum, to *Rotylenchus minutus,* n.comb. 641
Scutellonema multistriatum, synonym of *Scutellonema bizanae* 641
Scutellonema sexlineatum, incertae sedis 641
Scutellonema vietnamiense, sp. inq. 641
Scutylenchus baluchiensis, n.sp., apples, Pakistan 79
Sea of Japan
Pseudosteineria inaequispiculata, morphology 379
Pseudosteineria sagittispiculata, n.sp. 379
Sea water
Chromadorita minima, USA, species patterns 357
Metachromadora chandleri, USA, species patterns 357
Metachromadora obesa, USA, species patterns 357
Metachromadora remanei, USA, species patterns 357
Ptycholaimellus pandispiculatus, USA, species patterns 357
Seaweeds, *Ptycholaimellus setosus,* n.sp., Argentina 91
Secale silvestre, Leipotylenchus secalis, n.sp., USSR 648
Sectonema anisonchium, n.sp., forest soil, Colombia 403
Sectonema macbethi, forest soil, Colombia 403
Sectonema mucrodens, n.sp., forest soil, Colombia 403
Sectonema truxum, n.sp., forest soil, Colombia 403
Seinura filicaudata
cabbage, USSR, new geographic record 24
cucumbers, USSR, new geographic record 24
Senegal, *Scutellonema cavenessi,* fallow 817
Seriespinula, keys 635
Seriespinula alternata
n.sp.
Paspalum, Argentina 635
Stenandrium dulce, Argentina 635
Seriespinula coronata, to *Syro coronatus,* n.g., n.comb. 83
Sesamum indicum
Hoplolaimus columbus, pathogenicity 729
Nematoda, books 288
Sesbania grandiflora, Meloidogyne incognita, resistance 1031
Setosabatieria fibulata, n.comb., for *Sabatieria fibulata* 84
Setosabatieria hilarula, n.g., n.comb., *Sabatieria hilarula* 84
Sherodera, morphology 412
Simpliconematidae, n.fam. 631
Simpliconoma aenigmatodes, n.g., n.sp., Antarctica 631
Simuliidae, Mermithidae 954
Simulium damnosum, Isomermis lairdi, Ghana, reduction in *Onchocerca volvulus* transmission 348
Simulium japonicum
Gastromermis mesostoma, n.sp., Japan 665
Isomermis bipapillatus, n.sp., Japan 665
Mermithidae, Japan 35
Simulium uchidae, Mermithidae, Japan 47
Sinapis alba
Heterodera schachtii
resistance 112
reviews 1023
Sisymbrium irio, Meloidogyne javanica, India, new host record 308
Sitona discoideus, Heterorhabditis heliothidis, Beauveria bassiana, New Zealand, biological control organisms 953
Soil (*see also* types of soil)
Acrobeles oasiensis, n.sp., Tunisia 372
Soil *cont.*
biochemistry
fenamiphos 239
oxamyl 239
Ceramotylenchus tesselatus, n.g., n.sp., USA 637
Criconema certesi, n.sp., Chile 667
Ditylenchus dipsaci, solarization 508
fenamiphos, persistence 1157
free living nematodes
Czechoslovakia, soil amendments 1119
fertilizers, sewage sludge 1114
herbicides 192
Pinus radiata, New Zealand 488
Spain, distribution, depth 481
USA
ecology 492
prevalence, desert soils 1110
Yugoslavia, ecology 1120
Globodera
detection technique 881
techniques, detection 1178
Harposporium, USSR 227
Helicotylenchus dihystera, extraction techniques 893
Hemicycliophora macrodorata, n.sp., Chile 667
Heterodera, techniques, detection 1178
Heterodera carotae, solarization 508
Heterorhabditis, infectivity, temperature 161
Meloidogyne, larvae, USSR, control solar energy 205
Meloidogyne hapla, Bacillus, association 822
Meloidogyne incognita
extraction techniques 893
storage temperature 891
Meloidogyne javanica, solarization 508
nematophagous fungi, USSR 227
Neoaplectana, infectivity, temperature 161
Ogma terrestris, n.sp., Chile 667
Paratylenchus fueguensis, n.sp., Chile 667
Pelodera
chlordane, toxicity 518
oxamyl, toxicity 518
plant parasitic nematodes
control, reviews 1156
Czechoslovakia
soil amendments 1119
survey 191
distribution, moisture gradient 791
fertilizers, sewage sludge 1114
nematicides, application methods 1174
population dynamics 186
Spain, distribution, depth 481
USA
ecology 492
vertical distribution 484
USSR, ecology 181
Pleurotylenchus minor, n.sp., USA 637
Prodorylaimus mas, n.sp., Netherlands 386
Prodorylaimus rotundiceps, n.sp., Netherlands 386
Prodorylaimus uliginosus, n.sp., Netherlands 386
Sclerolabia africana, n.g., n.sp., Cameroon 374
Sclerolabia jamaicensia, n.g., n.sp., Jamaica 374
techniques, sampling, compared 1177
Tylenchus andrassyi, n.sp., India 73
Xiphinema, Spain, distribution, soil type 793
Xiphinema loteni, n.sp., South Africa 991
Xiphinema stockeri, n.sp., Botswana 383
Soil amendments, *Meloidogyne, Vigna unguiculata,* cocoa pod husks 213
Solanaceae, *Meloidogyne,* resistance, reviews 1025
Solanum
Ditylenchus destructor
resistance, glycoalkaloids 117
USSR, resistance 100
Solanum *cont.*
Globodera rostochiensis, German Federal Republic, resistance testing 1047
Solanum melongena, Rotylenchulus reniformis, pathology, amino acid content 733
Solanum sisymbrifolium
Meloidogyne incognita, resistance 94
Meloidogyne javanica, India, new host record 575
Solarization, *Globodera rostochiensis,* potatoes 838
Solenopsis geminata, Mermithidae, USA 42
Sonchus asper, Meloidogyne javanica, India, new host record 308
Sonchus oleraceus, Meloidogyne incognita 1132
Sorghum
Helicotylenchus dihystera
fungi
Colombia, associations 612
USA, associations 612
Heterodera
fungi
Colombia, associations 612
USA, associations 612
plant parasitic nematodes
Colombia, surveys 493
Tropics, reviews 323
Pratylenchus zeae
fungi
Colombia, associations 612
USA, associations 612
Quinisulcius acutus
fungi
Colombia, associations 612
USA, associations 612
Xiphinema fatikae, n.sp., Nigeria 370
Sorghum vulgare
Axonchium (Axonchium) neoeletum, n.sp., India 398
Axonchium (Axonchium) phukani, n.sp., India 398
South Africa
Afrina wevelli, n.sp., *Eragrostis curvula* 68
Helicotylenchus dihystera, Psidium guajava 748
Meloidogyne, tobacco, prevalence 328
Nematology, conferences 284
plant parasitic nematodes, sugarcane, pathogenicity 127
Xiphinema, vineyards, surveys 4
Xiphinema barbercheckae, n.sp., grapes 634
Xiphinema bolandium, n.sp., grapes 634
Xiphinema capense, n.sp., grapes 634
Xiphinema loteni, n.sp., soil 991
Soyabeans
Helicotylenchus pseudorobustus, interactions 732
Heterodera glycines
aldicarb 814, 827, 848
breedings techniques 884
carbofuran 827
China, resistance 428
Corynespora cassiicola 966
ethylene dibromide 859
fenamiphos 859
interactions 732
Japan
pathology 738
prevalence 738
Phialophora gregata 966
population dynamics 491, 1027
resistance 113, 443, 677-678, 682, 686, 1018, 1040
resistance testing 1030
UC 70480 827
UC 70667 827
USA, geographical isolates 639, 724, 757
USSR, general account 820
Hoplolaimus columbus
1,3-dichloropropene 847
pathogenicity 730

Soyabeans *cont.*
Meloidogyne arenaria
Meloidogyne incognita, interactions 689
temperature, pathogenicity 179
USA 14
double cropping 795
Meloidogyne incognita
benomyl 803
carbofuran benomyl 803
ecology 1074
oxamyl benomyl 803
pathogenicity 1045, 1074, 1125
population dynamics 1045, 1125
resistance 718, 1053
temperature, pathogenicity 179
USA 14
Meloidogyne javanica, USA 14
Paratrichodorus christiei, USA, double cropping 795
Paratylenchus projectus, interactions 732
plant parasitic nematodes
Brazil, resistance 715
pesticide interactions 839
resistance, reviews 433
USA, genera account 309
Pratylenchus agilis
pathogenicity 139
resistance 1046
Pratylenchus brachyurus
host damage 786
population dynamics, planting date 133, 182
Pratylenchus scribneri, interactions 732
Pratylenchus sefaensis, USA, new geographic record 310
Tylenchorhynchus martini, interactions 732
Spain
Criconematidae, geographical distribution 1126
Draconema claparedii, marine sediments 387
free living nematodes, soil, distribution, depth 481
Heterodera avenae, wheat, cyst hatching 494
Longidoridae, geographical distribution 1126
Longidorus carpetanensis, n.sp., *Cytisus purgans* 984
Longidorus unedoi
n.sp.
Arbutus unedo 984
Quercus faginea 984
plant parasitic nematodes
crops, irrigation 28
soil, distribution, depth 481
vegetables, check list 297
Prochaetosoma vitielloi, marine sediments 387
Rotylenchus magnus, n.sp., *Betula* 1016
Rotylenchus mesorobustus, n.sp., *Cytisus scoparius* 1016
Tylenchulus semipenetrans, *Citrus* 568
Xiphinema, soil, distribution, soil type 793
Xiphinema diversicaudatum, geographical distribution, edaphic factors 1103
Xiphinema italiae, geographical distribution 1127
Xiphinema pachtaicum, geographical distribution, edaphic factors 1103
Xiphinema turcicum, geographical distribution 1127
Sphaeronema camelliae
Camellia japonica, Japan, new geographic record 629
n.sp., *Camellia japonica*, Japan 629
Sphaeronema rumicis, *Populus angustifolia*, USA, new geographic record 673
Sphaeroteroidea
Glomerinema fanonyi, n.sp., Madagascar 411
Glomerinema grandisperma, n.sp., Madagascar 411
Sphaeroteroidea *cont.*
Glomerinema ritteri, n.sp., Madagascar 411
Rhigonema erringtoni, n.sp., Malaysia 1013
Spodoptera exigua
Heterorhabditis heliothidis, biological control organisms, encapsulation, calcium alginate 341
Neoaplectana carpocapsae, biological control organisms, encapsulation, calcium alginate 341
Spodoptera litura
Neoaplectana bibionis, infectivity 958
Neoaplectana carpocapsae, infectivity 957, 1084
Neoaplectana feltiae, infectivity 958
Neoaplectana glaseri, infectivity 958, 1084
Sri Lanka
Meloidogyne, race identification 10
reports, Tea Research Institute 548
Steinernema feltiae *(see Neoaplectana carpocapsae)*
Steinernematidae, *Cephalcia abietis*, Czechoslovakia, biological control organisms 960
Stenandrium dulce, *Seriespinula alternata*, n.sp., Argentina 635
Strawberries
Aphelenchoides fragariae, fenamiphos 525
Ditylenchus
USSR
green manures 204
herbicides 204
Ditylenchus dipsaci
USSR
control 110
DD 214
heterophos 214
host range 110
hot water treatment 202
metam sodium 214
nematicides, various 229
Longidoridae, Belgium, virus transmission 619
Neoaplectana glaseri, Otiorhynchus sulcatus, biological control organisms 955
plant parasitic nematodes
Canada 932
vegetative propagation 942
Pratylenchus penetrans, feeding behaviour 470
Rotylenchus fragaricus, n.sp., Pakistan 1000
toxicity, fenamiphos 525
Trichodoridae, Belgium, virus transmission 619
Strawberry latent ringspot virus, *Xiphinema diversicaudatum*, transmission 350
Strelkovimermis spiculatus, n.sp., *Aedes albifasciatus*, Argentina 1004
Streptomyces scabies, *Meloidogyne incognita*, potatoes, interactions 617
Subanguina centaureae, to *Mesoanguina centaureae*, n.comb. 633
Subanguina chartolepidis, to *Mesoanguina chartolepidis*, n.comb. 633
Subanguina cousininae, to *Mesoanguina cousininae*, n.comb. 633
Subanguina ferulae, to *Heteroanguina ferulae*, n.comb. 633
Subanguina kopetdaghica, to *Mesoanguina kopetdaghica*, n.comb. 633
Subanguina mobilis, to *Mesoanguina mobilis*, n.comb. 633
Subanguina montana, to *Mesoanguina montana*, n.comb. 633
Subanguina picridis
Acroptilon repens, biological control organisms 776
host range 596
host specificity 675
morphology 675
to *Mesoanguina picridis*, n.comb. 633
Subanguina plantaginis, to *Mesoanguina plantaginis*, n.comb. 633
Subanguina polygoni, to *Heteroanguina polygoni*, n.comb. 633
Subanguina varsobica, to *Mesoanguina varsobica*, n.comb. 633
Subsoiling
Belonolaimus longicaudatus, maize 236
Hoplolaimus galeatus, maize 236
Pratylenchus, maize 236
Trichodorus christiei, maize 236
Sugarbeet
Heterodera schachtii
development 777
Finland, population dynamics 872
German Democratic Republic, crop rotation 1144
green manure 206
mathematical models 777
migration 176
trap crops 221
USA, geographical distribution 498
USSR
control 840
pathology 741
Longidorus, aldicarb 504
Longidorus elongatus
USSR
control 242
pathogenicity 242
Nacobbus aberrans
development 727
Heterodera schachtii, interactions 727
Meloidogyne hapla, interactions 727
pathogenicity 727
Paratrichodorus, aldicarb 504
plant parasitic nematodes
aldicarb 244
carbofuran 244
oxamyl 244
USSR, crop rotations 790
Trichodorus, aldicarb 504
Sugarcane
Meloidogyne incognita
pathogenicity 714
resistance 714, 1043
Meloidogyne javanica
Brazil, control 850
resistance 1043
Neoaplectana glaseri, Scarabaeidae, Australia, biological control 961
Ottolenchus longicauda, n.sp., Pakistan 654
Paralongidorus agni, n.sp., India 668
Paralongidorus buckeri, n.sp., India 668
Pararotylenchus microstylus, n.sp., Pakistan 79
Paratrophurus sacchari, n.sp., India 638
plant parasitic nematodes
Brazil 326
control 851
minimum tillage systems 322
nematicides 849
prevalence 573
survey 313
Burkina Faso, nematicides, economic loss 448
cultural methods 813
Ivory Coast, nematicides, economic loss 448
methyl bromide 209
South Africa, pathogenicity 127
West Africa, pathogenicity 127
Pratylenchus zeae, Brazil, control 850
Rotylenchulus parvus, pathogenicity 147
Surveys
Anguina tritici, wheat, India 940
Globodera rostochiensis, potatoes, Pakistan 580
Longidoridae, Italy 401, 944
Meloidogyne
tobacco, USA 26
weeds, India 929
Paralongidorus australis
rice, Australia 594
virgin soils, Australia 594

Surveys *cont.*
plant parasitic nematodes
Argentina 948
Cladonia glauca, Irish Republic 669
crops, Papua New Guinea 295
mulberries, Japan 325
Rumohra adiantiformis, USA 579
Sorghum, Colombia 493
Pratylenchus penetrans, Rumohra adiantiformis, USA 579
Tylenchorhynchus claytoni, Rumohra adiantiformis, USA 579
Xiphinema, vineyards, South Africa 4
Sweden
Globodera pallida, potatoes, pathotypes 660, 703
Globodera rostochiensis, potatoes, pathotypes 660, 703
Heterodera avenae, wheat, rotations 516
Malenchus tantulus, Pinus sylvestris, new geographic record 307
marine nematodes, marine soils, weight, survey 198
nematophagous fungi 219
Neoaplectana carpocapsae, Hylobius abietis, biological control agent 346
plant parasitic nematodes, *Pinus sylvestris*, distribution 307
Switzerland
Heterorhabditis heliothidis
Otiorhynchus rugifrons, biological control organisms 605
Otiorhynchus sulcatus, biological control organisms 605
Longidorus
apples, prevalence, distribution 933
grapes, prevalence, distribution 933
Longidorus macrosoma, raspberry ring spot virus, cherries 971
Xiphinema
apples, prevalence, distribution 933
grapes, prevalence, distribution 933
Symplocostoma brevispiculum, n.sp., Gulf of Mexico 992
Synanthedon culiciformis, Neoaplectana carpocapsae, Alnus, USA, biological control organisms 956
Synanthedon myopaeformis
Neoaplectana bibionis, biological control agent 336
Neoaplectana carpocapsae, biological control agent 336
Synanthedon resplendens, Neoaplectana carpocapsae, Platanus, USA, biological control organisms 956
Synanthedon typhiaeformis
Neoaplectana bibionis, biological control agent 336
Neoaplectana carpocapsae, biological control agent 336
Syria, *Heterodera ciceri*, n.sp., *Cicer arietinum* 410
Syringolaimus loofi, n.sp., North Sea 644
Syringolaimus renaudae, n.sp., Atlantic Ocean 644
Syro chrisbarnardi, n.g., n.comb., for *Ogma chrisbarnardi* 83
Syro coronatus, n.g., n.comb., for *Seriespinula coronata* 83
Syro dracomontanus, n.g., n.comb., for *Crossonema dracomontanum* 83
Syro hughdavidi, n.g., n.sp., *Ipomoea batatas*, Papua New Guinea 83
Syro melanesicus, n.g., n.comb., for *Crossonema melanesicum* 83
Syro orphreyifer, n.g., n.sp., *Ipomoea batatas*, Papua New Guinea 83
Syro vexillatrix
n.g., n.sp.
Crotalaria lunata, Papua New Guinea 83
Ipomoea batatas, Papua New Guinea 83
Tabanidae
USSR
Pheromermis verhalis, redescribed 983
Tabanidae *cont.*
USSR *cont.*
Pheromermis zaamini, redescribed 983
Tabanus maculicornis, Pheromermis rubzovi, n.sp., USSR 983
Tagetes patula 826
Tamarix, Meloidogyne turkestanica, n.sp., USSR 88
Targionia hypophylla, Macroposthonia onoensis, India, new host/geographic record 377
Tasman Sea, *Nicascolaimus punctatus*, n.g., n.sp. 1005
Taxonomy
Acantholaimus longistriatus, n.sp. 642
Acantholaimus macramphis, n.sp. 642
Acantholaimus microdontus, n.sp. 642
Acantholaimus quadridentatus, n.sp. 380
Acanthopharyngoides bidentatus, n.sp. 380
Acrobeles oasiensis, n.sp. 372
Acrobolus emarginatus, n.g., n.comb., (Cephalobidae) 632
Afrina spermophaga, n.comb. 68
Afrina wevelli, n.sp. 68
Afrodera africana, n.g., n.comb., (Heteroderidae) 412
Afrodorylaimus 386
Aglenchus 657
Aglenchus andrassyi, n.sp. 670
Anguininae, revised, keys 633
Anomalostoma vazi, n.g., n.sp., (Christiellinae) 375
Aphelenchoides bimucronatus, n.sp. 659
Aphelenchoides lichenicola, n.sp. 669
Arachnomermis, gen. inq. 664
Aranimermis aptispicula, n.g., n.sp., (Mermithidae) 664
Artigasia dubitata, n.sp. 375
Artigasia luizaugustoi, n.sp. 375
Artigasia magnacaput, n.sp. 375
Ataloderinae 412
Aulosphora, synonymized 77
Austranema mexicanus, n.sp. 380
Axonchium (Axonchium) khasianum, n.sp. 398
Axonchium (Axonchium) neoeletum, n.sp. 398
Axonchium (Axonchium) parasaccatum, n.sp. 398
Axonchium (Axonchium) phukani, n.sp. 398
Basiria babhi, nom.nov. 290
Bellodera utahensis, n.g., n.comb., (Heteroderidae) 412
Bovienema gifuchsi, nom.nov. 290
Brumptaemilius, diagnosis emended 89
Brumptaemilius monsarratae, n.sp. 89
Brumptaemilius venardi, n.sp. 89
Bursaphelenchus 640
Cactodera acnidae, n.comb. 412
Californidorus 400
Californidorus clavicaudatus, n.sp. 400
Californidorus cralleyi, n.sp. 400
Californidorus cylindricaudatus, n.sp. 400
Calyptronema pulchrum, n.sp. 992
Carnoya mackintoshae, n.sp. 627
Cephalenchus daisuce, n.sp. 658
Cephalenchus nemoralis, n.sp. 658
Cephalenchus potamophilus, n.sp. 658
Ceramotylenchus tesselatus, n.g., n.sp., (Duosulciinae) 637
Chondronema passali 290
Chondronematidae, n.fam., (Drilonematida) 290
Chondronematina, n.subord., (Drilonematida) 290
Chondronematinae, n.subfam., (Drilonematida) 290
Chondronematoidea, n.superfam., (Drilonematida) 290
Christiella longicollis, n.comb. 375
Christiellinae 375
Chromaspirinia longisetosa, n.sp. 380
Comesomatidae 84
Coronocephalus ovilamelatus, n.sp. 375
Taxonomy *cont.*
Coronocephalus ovipunctatus, n.g., n.sp., (Christiellinae) 375
Coronostoma dentata, n.sp. 1014
Coronostoma diplopodicola, n.comb. 674
Coronostoma gautuni, n.sp. 1014
Cosaglenchus, synonymized 657
Coslenchus 657
Coslenchus costatus 389
Coslenchus japonicus, n.sp. 389
Criconema certesi, n.sp. 667
Criconemella, diagnosis emended 993
Criconemella avicenniae, n.sp. 391
Criconemella brevicauda, n.sp. 69
Criconemellinae, n.subf., (Criconematidae) 993
Criconemoides eroshenkoi, nom.nov. 290
Crossonema raskii, n.sp. 666
Cryphoderinae 412
Cryptaphelenchoides propora, n.sp. 92
Cylindrotylenchus pini, n.g., n.sp., (Nothotylenchidae) 92
Deladeninae, n.subfam. 290
Desmodera curvispiculum, n.sp. 380
Desmodora bulbosa, n.sp. 380
Desmodora punctata, n.sp. 380
diagnoses, general discussion 72
Discolaimus agricolus, n.sp. 1009
Discolaimus elegans, n.sp. 1009
Discolaimus silvicolus, n.sp. 1009
Ditylenchus dipsaci 537
Divisispiculimermis mirus, n.g., n.sp. (Mermithidae) 636
Divittus impar, n.comb., (Tylenchorhynchinae) 999
Dolichodera andinus, n.comb. 412
Dolichodorus aquaticus, n.sp. 987
Dorylaimellus directus 74
Dorylaimellus montenegricus 74
Dorylaimellus monticolus 74
Dorylaimidae 560
Dracograllus antillensis 986
Drepanodorylaimus, synonymized 386
Drilonematida 290
Ecphyadophoroidinae, n.subfam. 290
Enchodelus coomansi, n.sp. 391
Enchodelus southeyi, n.sp. 646
Enoploides polysetosus, n.sp. 992
Ephippiodera, synonymized 412
Epicharinematinae, n.subfam. 80
Eudorylaimus geraldthornei, nom.nov. 559
Eutylenchinae, n.subfam. 290
Filenchus afghanicus, n.comb. 670
Filenchus criniformicaudatus, n.comb. 670
Filenchus quartus, n.comb. 670
Filenchus sheri, n.comb. 670
Filenchus spiculatus, n.sp. 670
Filenchus striatus, n.comb. 670
Filipjeva, revised 631
Filipjeva crucis, n.sp. 631
Filitonchoides thiobioticus, n.g., n.sp. 380
Fungiotonchium bifurcatum, n.g.,n.comb. 290
Gammarinema ampullocauda, n.comb. 996
Gastromermis mesostoma, n.sp. 665
Glaber geopetiti, n.comb. 375
Globodera hypolysi, n.sp. 393
Glomerinema fanonyi, n.sp. 411
Glomerinema grandisperma, n.sp. 411
Glomerinema ritteri, n.sp. 411
Goodeyella minutissima, n.g.,n.comb. 290
Gracilacus yokooi, n.sp. 407
Halichoanolaimus macramphis, n.sp. 643
Halichoanolaimus macrophallus, n.sp. 643
Haliplectus salicornius, n.sp. 1015
Helicotylenchus obliquus, n.sp. 1000
Helicotylenchus ryzhikovi, n.sp. 650
Hemicriconemoides litchi 989
Hemicycliophora 77
Hemicycliophora guptai, n.sp. 377
Hemicycliophora macrodorata, n.sp. 667

Taxonomy *cont.*
Hemicycliophora salicis, synonymized 77
Heteroanguina caricis, n.comb. 633
Heteroanguina ferulae, n.comb. 633
Heteroanguina polygoni, n.comb. 633
Heterodera ciceri, n.sp. 410
Heterodera mali, synonymized 412
Heterodera rumicis, synonymized 412
Heterodera scleranthi, synonymized 412
Heterodera ustinova, synonymized 412
Heteroderidae 412
Heteromorphotylenchinae, n.subfam. 290
Heterotylenchinae, n.subfam. 290
Heth magnavulvaris, n.sp. 627
Heth parartigasi, n.sp. 627
Hexamermis 409
Hexamermis dactylocercus, n.sp. 86
Hoplorhynchus, synonymized 997
Hoplotylus montanus, n.sp. 388
Hypsoperine (Spartonema), n.subg. 290
Hystrignathinae 375
Hystrignathus metropolitanus, n.sp. 375
Hystrignathus papillophorus, n.sp. 375
Hystrignathus paulistanus, n.sp. 375
Incurvinema helicoides, n.g., n.sp., (Allantonematidae) 376
Isomermis bipapillatus, n.sp. 665
Isthmusimermis amphidis, n.sp. 381
Ixonema powelli, n.sp. 380
Karachinema elongatum, n.g., n.sp. 80
Klossiella brevistoma, n.sp. 375
Klossiella longistoma, n.sp. 375
Klossiella travassosi, n.g., n.sp., (Christiellinae) 375
Klossnema repentina, n.g., n.sp., (Christiellinae) 375
Klossnematinae, n.subfam. 375
Laimaphelenchus 67
Laimaphelenchus montanus, synonymized 67
Laimaphelenchus parvus, synonymized 67
Laimaphelenchus silvaticus, synonymized 67
Laimydorus 386
Laimydorus parafecundus, n.comb. 651
Laimydorus tenuistriatus, n.comb. 651
Leipotylenchus secalis, n.sp. 648
Leptolaimus sebastiani, n.sp. 1015
Leptosomatum woodsi, n.sp. 992
Longidorus aetnaeus, n.sp 1007
Longidorus carpetanensis, n.sp. 984
Longidorus unedoi, n.sp. 984
Longior longicollis, n.comb. 375
Loofia, synonymized 77
Macroposthonia douceti, nom.nov. 290
Macroposthonia xenoplax 989
Marylynnia johanseni, n.sp. 380
Marylynnia punctata, n.sp. 380
Meloidoderinae 412
Meloidogyne 883
Meloidogyne caraganae, n.sp. 88
Meloidogyne fujianensis, n.sp. 396
Meloidogyne nataliei 896
Meloidogyne salasi, n.sp. 78, 652
Meloidogyne suginamiensis, n.sp. 408
Meloidogyne turkestanica, n.sp. 88
Merlinius acuminatus, n.sp. 1001
Merlinius djungaricus, n.comb., (Tylenchorhynchinae) 999
Merlinius salechardicus, n.sp. 659
Mermis quirindiensis, n.sp. 985
Mesoanguina amsinckia, n.comb. 633
Mesoanguina balsamophila, n.comb. 633
Mesoanguina centaureae, n.comb. 633
Mesoanguina chartolepidis, n.comb. 633
Mesoanguina cousininae, n.comb. 633
Mesoanguina kopetdaghica, n.comb. 633
Mesoanguina millefolii, n.g., n.comb., (Anguininae) 633
Mesoanguina mobilis, n.comb. 633
Mesoanguina montana, n.comb. 633
Mesoanguina moxae, n.comb. 633
Mesoanguina pharangii, n.comb. 633
Taxonomy *cont.*
Mesoanguina picridis, n.comb. 633
Mesoanguina plantaginis, n.comb. 633
Mesoanguina varsobica, n.comb. 633
Miculenchus elegans, n.sp. 399
Mitranema mitrum, n.g.,n.sp., (Ecphyadoroidinae) 290
Mukazia nova, n.g.,n.comb. 290
Nectopelta annulata, n.g.,n.comb. 290
Neoaplectana intermedia, n.sp. 663
Neomisticius rhizomorphoides, n.g.,n.comb. 290
Nicascolaimus punctatus, n.g., n.sp., (Axonolaimidae) 1005
Nothocriconema miscanthi, n.sp. 656
Nothocriconema yakushimense, n.sp. 406
Nygellus 75
Obainia petteri, n.sp. 367
Ogma brevistylum, n.sp. 406
Ogma (Homogma), n.subg. 290
Ogma (Pellipecten), n.subg. 290
Ogma terrestris, n.sp. 667
Orientylus 413
Ottolenchus azadkashmirensis, n.sp. 654
Ottolenchus cabi, n.sp. 669
Ottolenchus cylindricus, n.comb. 669
Ottolenchus discrepans, n.comb. 669
Ottolenchus facultativus, n.comb. 669
Ottolenchus helenae, n.comb. 669
Ottolenchus longicauda, n.sp. 654
Ottolenchus platycephalus, n.comb. 669
Ottolenchus vesiculosus, n.comb. 669
Paktylenchus, synonymized 657
Paracyatholaimus spinulosus, n.sp. 380
Paradorylaimus wilhelmschneideri, sp. incertae sedis 651
Paralongidorus agni, n.sp. 668
Paralongidorus australis, n.sp. 404
Paralongidorus buchae, n.sp. 385
Paralongidorus buckeri, n.sp. 668
Pararotylenchus microstylus, n.sp. 79
Parasitylenchidae, n.fam. 290
Parasitylenchinae, n.subfam. 290
Paratrophurus sacchari, n.sp. 638
Paratylenchus fueguensis, n.sp. 667
Paratylenchus tui, n.sp. 83
Paraxyo pauliani, n.comb. 375
Pardosomermis, gen. inq. 664
Peltamigratus amazonensis, n.sp. 630
Peltamigratus areolatus, n.sp. 630
Peltamigratus cerradoensis, n.sp. 630
Peltamigratus levicaudatus, n.sp. 630
Peltamigratus paraensis, n.sp. 630
Peltamigratus raskii, n.sp. 630
Pheromermis rubzovi, n.sp. 983
plant parasitic nematodes, books 292
Plectus amorphotelus, n.sp. 378
Plectus cancellatus, redescribed 378
Plectus spicacaudatus, n.sp. 378
Pleurotylenchus minor, n.sp. 637
Pratylenchoides magnicaudoides, n.sp. 388
Pratylenchus morettoi, n.sp. 998
Pratylenchus sensillatus, n.sp. 369
Prochaetosoma brighti, n.sp. 380
Prochromadorella papillata, n.sp. 380
Prodolichorhynchus elegans, n.g., n.comb. 645
Prodorylaimus 386
Prodorylaimus andrassyi, n.comb. 386
Prodorylaimus dalmassoi, n.sp. 386
Prodorylaimus mas, n.sp. 386
Prodorylaimus nyongi, n.comb. 386
Prodorylaimus ranzii, n.comb. 386
Prodorylaimus rotundiceps, n.sp. 386
Prodorylaimus uliginosus, n.sp. 386
Pseudocella karensis, n.sp. 397
Pseudosteineria, keys 379
Pseudosteineria sagittispiculata, n.sp. 379
Ptycholaimellus setosus, n.sp. 91
Punctoderinae 412
Qudsianematidae, books 559
Quinisulcius brevistyletus, n.sp. 650
Ransomnema paraguayense, n.sp. 627
Rhabditis conica, synonymized 405
Rhabditis dolichuroides, n.sp. 64
Rhigonema erringtoni, n.sp. 1013
Taxonomy *cont.*
Rhigonematida 368
Rhips anoxybiotica, n.sp. 380
Rhizonema, synonymized 412
Roqueus heterurus, n.comb. 651
Rotylenchus 413
Rotylenchus alii, n.sp. 1000
Rotylenchus fragaricus, n.sp. 1000
Rotylenchus impar, n.comb. 641
Rotylenchus incisicaudatus, n.comb. 641
Rotylenchus insularis, n.comb. 641
Rotylenchus laeviflexus, n.comb. 641
Rotylenchus magnus, n.sp. 1016
Rotylenchus mesorobustus, n.sp. 1016
Rotylenchus minutus, n.comb. 641
Rotylenchus pakistanensis, n.sp. 1000
Sabatieria 85
revised 84
Sabatieria microseta, synonymized 84
Schubartnematinae 375
Sclerolabia, n.g., (Thornenematidae) 374
Sclerolabia africana, n.g., n.sp. 374
Sclerolabia camerunensia, n.g., n.sp. 374
Sclerolabia indica, n.g., n.comb., (Thornenematidae) 374
Sclerolabia jamaicensia, n.g., n.sp. 374
Sclerolabia minima, n.g., n.sp. 374
Scutellonema aberrans, synonymized 641
Scutellonema bangalorense, synonymized 641
Scutellonema conicaudatum, synonymized 641
Scutellonema dentivagina, synonymized 641
Scutellonema eclipsi, synonymized 641
Scutellonema mangiferae, synonymized 641
Scutellonema multistriatum, synonymized 641
Scutylenchus baluchiensis, n.sp. 79
Sectonema anisonchium, n.sp. 403
Sectonema mucrodens, n.sp. 403
Sectonema truxum, n.sp. 403
Seriespinula alternata, n.sp. 635
Setosabatieria fibulata, n.comb. 84
Setosabatieria hilarula, n.g., n.comb., (Sabatieriinae) 84
Simpliconema aenigmatoides, n.g., n.sp. (Trefusiida) 631
Sphaeronema camelliae, n.sp. 629
Strelkovimermis spiculatus, n.sp. 1004
Symplocostoma brevispiculum, n.sp. 992
Syringolaimus loofi, n.sp. 644
Syringolaimus renaudae, n.sp. 644
Syro chrisbarnardi, n.g., n.comb., (Criconematina) 83
Syro coronatus, n.g., n.comb., (Criconematina) 83
Syro dracomontanus, n.g., n.comb., (Criconematina) 83
Syro hughdavidi, n.g., n.sp., (Criconematina) 83
Syro melanesicus, n.g., n.comb., (Criconematina) 83
Syro orphreyifer, n.g., n.sp., (Criconematina) 83
Syro vexillatrix, n.g., n.sp., (Criconematina) 83
Tenunemellus tenuis, n.g.,n.comb. 290
Thadinae, n.subfam. 290
Thelastoma, species listed 628
Thelastoma dessetae, n.sp. 628
Thelastomatinae 375
Thripinema nicklewoodi, nom.nov. 290
Thripinema reniraoi, n.g.,nom.nov., (Allonematinae) 290
Trichodorus borai, n.sp. 87
Trichodorus complexus, n.sp. 87
Trophotylenchulus andhraensis, n.sp. 390
Trophotylenchulus piperis, n.sp. 81
Tumiota whittoni, n.g.,n.comb. 290
Tylenchida 982
books 290
monographs 290

Taxonomy *cont.*
Tylencholaimus alpinus, synonymized 1011
Tylencholaimus constrictus, n.sp. 1011
Tylencholaimus minutus, n.sp. 1011
Tylenchorhynchus amgi, n.sp. 384
Tylenchorhynchus cynodoni, n.sp. 384
Tylenchorhynchus eroshenkoi, nom.nov. 290, 999
Tylenchorhynchus musae, n.sp. 384
Tylenchorhynchus pini, n.sp. 650
Tylenchus andrassyi, n.sp. 73
Tylenchus hayati, n.sp. 382
Tylenchus rohtangus, n.sp. 382
Varotylus varus, n.g.,n.comb. 290
Verutinae 412
Willinema eburnense, n.sp. 373
Willinema laopangense, n.sp. 373
Willinema nanum, n.sp. 373
Willinema paraparvum, n.sp. 373
Xiphinema barberchekae, n.sp. 634
Xiphinema barense, n.sp. 994
Xiphinema bolandium, n.sp. 634
Xiphinema capense, n.sp. 634
Xiphinema dolosum, n.sp. 370
Xiphinema fatikae, n.sp. 370
Xiphinema loteni, n.sp. 991
Xiphinema majus, n.sp. 370
Xiphinema oryzae, n.sp. 370
Xiphinema stockeri, n.sp. 383
Tea, *Pratylenchus loosi*, pathogenicity, temperature 451
Techniques
application, nematicides 1186
assessment, resistance, *Ditylenchus dipsaci*, *Trifolium pratense* 107
breeding, *Heterodera glycines* 884
cryopreservation, *Meloidogyne graminicola* 1179
detection
Globodera
cysts, soil 881
soil 1178
Heterodera, soil 1178
Heterodera glycines, pheromones 886
disinfection, *Bursaphelenchus*, eggs 887
DNA extraction, Nematoda 1180
eradication, *Aphelenchoides besseyi*, *Panicum maximum*, seeds 228
extraction
free living nematodes, marine sands 249
Globodera rostochiensis 1181
Helicotylenchus dihystera, soil, temperature 893
Meloidogyne exigua, ova 535
Meloidogyne incognita
soil 891
temperature 893
Paralongidorus australis 594
fixation, *Caenorhabditis elegans*, transmission electron microscopy 880
fumigant monitoring 1185
handling, plant parasitic nematodes 1176
identification
Globodera, pathotypes 660, 672, 890, 1178
Globodera pallida, pathotypes 246
Globodera rostochiensis, pathotypes 246
Heterodera, pathotypes 1178
Meloidogyne 252
Meloidogyne, race identification 883
nematicide screening 203
preparing, *Meloidogyne* stylet 253
production, *Arthrobotrys oligospora* extract 247
sampling
Heterodera glycines 885
nematode distribution 487
plant parasitic nematodes
bananas 892
soil 484
soil, compared 1177
storage, plant parasitic nematodes 1183
studying
plant parasitic nematodes
contrast microscopy 894
pathogenicity 141

Techniques *cont.*
testing
resistance
Globodera 1178
Globodera rostochiensis, potatoes 1184
Heterodera 1178
Heterodera glycines, soyabeans 1030
Meloidogyne
tobacco 888-889
tomatoes 251
plant parasitic nematodes 1035
vegetables 423
toxicity testing, free living nematodes 882

Temik (*see* aldicarb)
Tenekil, plant parasitic nematodes, *Capsicum frutescens* 234
Tenunemellus tenuis, n.g.,n.comb. 290
Terbufos
Belonolaimus longicaudatus, maize 520
Hoplolaimus galeatus, maize 520
Meloidogyne incognita, *Vigna radiata* 526
plant parasitic nematodes, maize 830, 854
Pratylenchus scribneri, maize 874
Terminalia myriocarpa, *Axonchium (Axonchium) parasaccatum*, n.sp., India 398
Terr-O-gas 67, *Meloidogyne incognita*, tomatoes 868
Thadinae, n.subfam. 290
Thaumamermis cosgrovei, viruses, Isopoda, associations 55
Thecavermiculatus
morphology 412, 1003
phylogeny 1003
ultrastructure 1003
Thecavermiculatus andinus, to *Dolichodera andinus*, n.comb. 412
Thelastoma, species listed 628
Thelastoma dessetae, n.sp., *Rhinocricus bernardinensis*, Paraguay 628
Thelastomatinae
keys 375
taxonomy 375
Theobroma cacao, *Sclerolabia minima*, n.g., n.sp., Brazil 374
Therioplectes carabagensis, *Pheromermis rubzovi*, n.sp., USSR 983
Thripinema nicklewoodi, nom.nov., for *Howardula aptini*, apud Nickle & Wood, 1964 290
Thripinema reniraoi, n.g.,nom.nov., for *Howardula aptini*, apud Reddy, Nickle & Rao, 1982 290
Tirathaba rufivena, *Neoaplectana carpocapsae*, biological control agent 51
Tobacco
Globodera solanacearum, population dynamics 1027
Meloidogyne
Australia, pathogenicity 736
resistance 116
screening 888-889
South Africa, prevalence 328
USA, surveys 26
Meloidogyne arenaria, USA 315
Meloidogyne incognita
FMC 67825 831
USA 315
fenamiphos 816
Meloidogyne javanica
control 908
resistance 690-691, 908
soil temperature 685
USA 315
fenamiphos 816
Nematoda, viruses, interactions 53
Paratylenchus nanus, Bulgaria, morphological variations 66
Pratylenchus, Bulgaria, prevalence 294
Rotylenchulus reniformis, pathogenicity 1070
Xiphinema vuittenezi, experimental model, virus transmission 760

Tobacco rattle virus
Paratrichodorus, potatoes, Belgium, prevalence 58
Trichodorus, potatoes, Belgium, prevalence 58
Tobrilus 766
Tobrilus diversipapillatus
Australia, new geographic record 1104
river water, Australia, pollution indicators 1104
Tomato blackring virus
Longidorus breviannulatus, transmission 963
Longidorus diadecturus, transmission 963
Tomatoes
Globodera pallida, pathogenicity 746
Globodera rostochiensis, resistance 111
Heterodera schachtii, *Meloidogyne hapla*, interactions, temperature 157
Meloidogyne
Bulgaria, resistance 109
resistance 251, 1019
genetics 421
Meloidogyne acrita, resistance 442
Meloidogyne arenaria
organic fertilizers 211
Portugal 62
resistance 442
Meloidogyne incognita
age resistance 102
aldicarb 220
biological control, *Paecilomyces lilacinum* 1165
carbofuran 220
Cuba, development 168
dimethoate 1172
Glomus fascoculatum, interactions 979
KT-199 1145
Merlinius brevidens, population dynamics 452
organic fertilizers 1147
urine 222
Paecilomyces lilacinus, interactions 1165
pathogenicity 722, 746, 1072
pathology, giant cells 731
resistance 119, 435, 442, 719, 722, 1072
oxidative enzymes 96
Rhizoctonia solani, interactions 353
Rotylenchulus reniformis, interactions 305
Sclerotium rolfsii, interactions 353
Terr-O-gas 67 868
Verticillium dahliae, interactions 353
Meloidogyne javanica
benfuracarb 1146
control
Hannoa undulata seed extracts 858
Pasteuria penetrans, nematicides 502
resistant varieties 1152
rotations 1152
growth inhibitors 453
isazophos 1146
methyl isothiocyanate 1146
Portugal 62
resistance, hydroxyurea 716
rotations 1161
Paralongidorus buchae
histology 447
pathogenicity 447
plant parasitic nematodes, *Rhizoctonia solani*, interactions 614
Pratylenchus agilis
pathogenicity 139
resistance 1046
Rotylenchulus reniformis
development 476
pathogenicity, age resistance 734
pathology 131
amino acid content 733
resistance, phenolic content 697
toxicity, methyl bromide 809
Tonga, *Paratylenchus tui*, n.sp., *Alphitonia zizyphoides* 83

Toxicity
aldicarb
Daphnia laevis 507
rats 1141
aldicarb sulphone, *Daphnia laevis* 507
aldicarb sulphoxide, *Daphnia laevis* 507
Amanita, nematodes 340
carbofuran, *Gambusia affinis* 1149
fenamiphos, strawberries 525
lead, free living nematodes 802
methyl bromide, tomatoes 809
nematicides, Oligochaeta 514
oxamyl
microorganisms, soil 518
rabbits 834
rats 834
Transmission
Bursaphelenchus xylophilus, Pinus densiflora 48
Heterodera schachtii 498
Longidorus breviannulatus
peach rosette mosaic virus 963
tomato blackring virus 963
Longidorus diadecturus
peach rosette mosaic virus 963
tomato blackring virus 963
Xiphinema americanum, peach rosette mosaic virus, grapes 973
Xiphinema diversicaudatum, viruses 609-610
Trap cells, interactions, nematophagous fungi 496
Triazophos, *Heterodera cajani, Cajanus cajan* 1162
Trichodoridae
France, distribution maps 914
hops, Belgium, virus transmission 619
Poland, distribution maps 915
potatoes, Belgium, virus transmission 619
strawberries, Belgium, virus transmission 619
Trichodorus
sugarbeet, aldicarb 504
tobacco rattle virus, potatoes, Belgium, prevalence 58
Trichodorus borai, n.sp., *Bambusa*, India 87
Trichodorus christiei
maize
carbofuran 236
DD 236
subsoiling 236
Trichodorus complexus, n.sp., *Calamus viminalis*, India 87
Trichodorus cylindricus
potatoes
aldicarb 804
oxamyl 804
Trichodorus primitivus
population dynamics 778
potatoes
aldicarb 804
oxamyl 804
UK, localized spread 1106
Trifolium
Heterodera trifolii, New Zealand, survey 939
Meloidogyne, New Zealand, survey 939
Trifolium alexandrinum
Meloidogyne, resistance 97
plant parasitic nematodes, organic fertilizers 215
Trifolium incarnatum, Meloidogyne, resistance 97
Trifolium pratense
Ditylenchus dipsaci
culture techniques 250
resistance 107
USSR, general account 138
Trifolium repens
Meloidogyne camelliae
Camellia sinensis, Japan, new host record, seasonal dynamics 293
Eurya emarginata, Japan, new host record, seasonal dynamics 293
Eurya japonica, Japan, new host record, seasonal dynamics 293
Trifolium vesiculosum, Meloidogyne, resistance 97
Trisetum flavescens, Anguina agrostis, host reaction 1063
Triticale
plant parasitic nematodes
DBCP 1130
DD 1130
dimethoate 1130
fensulfothion 1130
organic fertilizers 1130
phorate 1130
Triumph
Hoplolaimus, Agrostis palustris 861
Meloidogyne, Agrostis palustris 861
Tylenchorhynchus, Agrostis palustris 861
Trophic levels
feeding behaviour, marine nematodes 173
marine nematodes, trophic levels 173
trophic levels, marine nematodes 173
***Trophotylenchulus andhraensis* n.sp.**, *Citrus aurantifolis*, India 390
Trophotylenchulus piperis, n.sp., *Piper nigrum*, India 81
Tropics
plant parasitic nematodes
barley, reviews 323
crops, resistance, reviews 1041
maize, reviews 323
oats, reviews 323
rice, reviews 323
Sorghum, reviews 323
wheat, reviews 323
Tulips
Ditylenchus dipsaci
aldicarb 532
oxamyl 532
Tumiota whittoni, n.g.,n.comb. 290
Tunisia, *Acrobeles oasiensis*, n.sp., soil 372
Turbatrix aceti
aging, cell-free protein synthesis 154
aging model, DNA repair 771
Tylenchida
books 563-564
phylogeny 982
taxonomy 982
books 290
monographs 290
Tylencholaimus, keys 1011
Tylencholaimus alpinus, synonym of *Tylencholaimus stecki* 1011
Tylencholaimus constrictus, n.sp., *Fagus*, Italy 1011
Tylencholaimus minutus, n.sp., *Fagus*, Italy 1011
Tylencholaimus mirabilis, morphology 1011
Tylencholaimus proximus, morphology 1011
Tylencholaimus stecki
morphology 1011
synonymy 1011
Tylencholaimus teres, morphology 1011
Tylenchorhynchus, Agrostis palustris, Triumph 861
Tylenchorhynchus amgi, n.sp., *Coffea arabica*, India 384
Tylenchorhynchus annulatus, rice, Australia 594
Tylenchorhynchus brassicae
aubergines, control, soil amendments 1129
Meloidogyne incognita, Rotylenchulus reniformis, interactions 1112
Tylenchorhynchus claytoni
Bouteloua curtipendula, pathogenicity, defoliation 1060
ecology, population dynamics 794
maize, host parasite interactions 577
Rumohra adiantiformis, USA, surveys 579
Tylenchorhynchus cynodoni, n.sp., *Cynodon dactylon*, India 384
Tylenchorhynchus djungaricus, to *Merlinius djungaricus*, n.comb. 999
Tylenchorhynchus dubius, maize, Poland, prevalence 935
Tylenchorhynchus eroshenkoi, nom.nov., for *Tylenchorhynchus varicaudatus* 290, 999
Tylenchorhynchus impar, to *Divittus impar*, n.comb. 999
Tylenchorhynchus martini, soyabeans, interactions 732
Tylenchorhynchus musae, n.sp., *Musa*, India 384
Tylenchorhynchus pini, n.sp., *Pinus sylvestris*, USSR 650
Tylenchorhynchus varicaudatus, to *Tylenchorhynchus eroshenkoi*, nom.nov. 290, 999
Tylenchorhynchus vulgaris, maize, Poland, prevalence 935
Tylenchulus semipenetrans
Citrus
aldicarb 233
carbohydrate partitioning 129
control 231
fenamiphos 212
general account 873
oxamyl 212
Spain 568
USA 304
Cymbopogon, plant extracts 522
Tylenchus afghanicus, to *Filenchus afghanicus*, n.comb. 670
Tylenchus andrassyi, n.sp., soil, India 73
Tylenchus arcuatus
Cheilanthes, India, new host record 377
morphology 382
Tylenchus cylindricus, to *Ottolenchus cylindricus*, n.comb. 669
***Tylenchus davainei, Plagiochasma appendiculatum*, India, new geographic record 377
Tylenchus discrepans, to *Ottolenchus discrepans*, n.comb. 669
Tylenchus facultativus, to *Ottolenchus facultativus*, n.comb. 669
Tylenchus hayati, n.sp., rice, India 382
Tylenchus helenae, to *Ottolenchus helenae*, n.comb. 669
Tylenchus platycephalus, to *Ottolenchus platycephalus*, n.comb. 669
Tylenchus quartus, to *Filenchus quartus*, n.comb. 670
Tylenchus rohtargus, n.sp., *Citrus lemon*, India 382
Tylenchus sandneri, cucumbers, USSR, new geographic record 24
Tylenchus sheri, to *Filenchus sheri*, n.comb. 670
Tylenchus striatus, to *Filenchus striatus*, n.comb. 670
Tylenchus thornei, maize, Poland, prevalence 935
Tylenchus vesiculosus, to *Ottolenchus vesiculosus*, n.comb. 669
UC 70480
Heterodera glycines, soyabeans 827
plant parasitic nematodes, maize 854
Pratylenchus scribneri, maize 874
Xiphinema americanum, apples 829
Xiphinema rivesi, apples 829
UC 70667
Heterodera glycines, soyabeans 827
plant parasitic nematodes, maize 854
Pratylenchus scribneri, maize 874
UC 800017, plant parasitic nematodes, maize 830
UC 800027, plant parasitic nematodes, maize 854
UK
Globodera pallida, potatoes 717
Globodera rostochiensis, potatoes 717
Longidorus elongatus, localized spread 1106
marine nematodes, pollution monitoring 981
nematicides, reviews 1201
Rotylenchus robustus, localized spread 1106
Trichodorus primitivus, localized spread 1106
Ulmus americana, Californidorus cylindricaudatus, n.sp., USA 400

Ultrastructure
Acrobelinae
labial probolae 371
sense organs 371
Acrobeloides nanus
labial probolae 371
sense organs 371
Adoncholaimus, microvilli 766
Anoplostoma, microvilli 766
Atalodera 1003
Chiloplacus minimus
labial probolae 371
sense organs 371
Eleutherolaimus, microvilli 766
Hemicycliophora, head 77
Heterodera schachtii 414
Heterorhabditis bacteriophora, reproductive tract 990
Hirschmanniella spinicaudata 65
Ogma decalineatum 1012
plant parasitic nematodes 647, 801
reviews 63
Pratylenchus crenatus, anterior sensilla 671
Pratylenchus penetrans, anterior sensilla 671
Pratylenchus thornei, anterior sensilla 671
Scutellonema brachyurum, spicules 90
Thecavermiculatus 1003
Tobrilus, microvilli 766
USA (*see also* Alaska; Hawaii)
Anguina amsinckia, *Amsinckia* 312
Aranimermis aptispicula, n.g., n.sp., *Cesonia bilineata* 664
Belonolaimus longicaudatus
maize
Arthrobotrys amerospora 235
fenamiphos 235
Bursaphelenchus xylophilus, *Pinus* 749
Californidorus clavicaudatus, n.sp., *Salix* 400
Californidorus cralleyi, n.sp., *Crataegus* 400
Californidorus cylindricaudatus, n.sp., *Ulmus americana* 400
Ceramotylenchus tesselatus, n.g., n.sp., soil 637
Chromadorita minima, sea water, species patterns 357
Criconemella, peaches 136
entomophilic nematodes, *Dendroctonus ponderosa*, *Pinus* 952
free living nematodes
aquatic plants, survey 302
soil
ecology 492
prevalence, desert soils 1110
Helicotylenchus dihystera, fungi, *Sorghum*, associations 612
Heterodera, fungi, *Sorghum*, associations 612
Heterodera glycines
population dynamics 782
soyabeans, geographical isolates 639, 724, 757
Heterodera schachtii, sugarbeet, geographical distribution 498
Hoplolaimus galeatus
maize
Arthrobotrys amerospora 235
fenamiphos 235
Howardula aoronymphium
Amanita 340
Drosophila 340
Longidorus macromucronatus, *Acer*, new geographical record 392
marine nematodes, marine sediments, long-term variability 174
Meloidogyne, tobacco, surveys 26
Meloidogyne arenaria
lucerne, resistance 416
maize, double cropping 795
rice, morphometrics 652
soyabeans 14
double cropping 795
tobacco 315
Meloidogyne exigua, rice, morphometrics 652
Meloidogyne hapla, rice, morphometrics 652
USA *cont.*
Meloidogyne incognita
lucerne, resistance 416
Manihot esculenta, resistance 431
rice, morphometrics 652
soyabeans 14
tobacco 315
fenamiphos 816
Meloidogyne javanica
lucerne, resistance 416
soyabeans 14
tobacco 315
fenamiphos 816
Vigna unguiculata 718
Mermithidae, *Solenopsis geminata* 42
Metachromadora chandleri, sea water, species patterns 357
Metachromadora obesa, sea water, species patterns 357
Metachromadora remanei, sea water, species patterns 357
Miculenchus elegans
n.sp.
forest trees 399
mosses 399
Neoaplectana bibionis, *Lymantria dispar*, biological control organisms 607
Neoaplectana carpocapsae
Heliothis zea, biological control organisms 598
Lymantria dispar, biological control organisms 607
Synanthedon culiciformis, *Alnus*, biological control organisms 956
Synanthedon resplendens, *Platanus*, biological control organisms 956
Neoaplectana intermedia, n.sp., *Galleria mellonella* 663
Paratrichodorus christiei
maize
Arthrobotrys amerospora 235
double cropping 795
fenamiphos 235
soyabeans, double cropping 795
plant parasitic nematodes
Aloe 1055
aquatic plants, survey 302
check list 586
Citrus, biological control, reviews 225
forest soils, ecology 311
forest trees 21
grasses, vertical distribution 484
local survey 392
lucerne, reviews 31
quarantine 923
Quercus, ghost citrus groves 922
Rumohra adiantiformis, surveys 579
soil
ecology 492
vertical distribution 484
soyabeans, genera account 309
Pleurotylenchus minor, n.sp., soil 637
Pratylenchus coffeae, *Citrus* 304
Pratylenchus morettoi, n.sp., *Plagiobothrys stipitatus* 998
Pratylenchus penetrans
potatoes, 1,3-dichloropropene 513
Rumohra adiantiformis, surveys 579
rye, 1,3-dichloropropene 513
Pratylenchus sefaensis, soyabeans, new geographic record 310
Pratylenchus zeae, fungi, *Sorghum*, associations 612
Ptycholaimellus pandispiculatus, sea water, species patterns 357
Quinisulcius acutus, fungi, *Sorghum*, associations 612
Radopholus citrophilus, *Citrus* 304
Sphaeronema rumicis, *Populus angustifolia*, new geographic record 673
Tylenchorhynchus claytoni, *Rumohra adiantiformis*, surveys 579
Tylenchulus semipenetrans, *Citrus* 304
USSR
Aphelenchoides besseyi, rice, control, seeds 856
Aphelenchoides bimucronatus, n.sp., Arctic tundra 659
Bidera filipjevi, wheat, males, morphology 653
Ditylenchus
fruits
control 214
losses 214
plants
distribution, host range 33
general account 29, 32
strawberries
green manures 204
herbicides 204
vegetables
control 214
losses 214
Ditylenchus destructor
potatoes
control 200, 210
crop rotations 243
dry heat treatment 523
prevalence 427
resistance 427
Solanum, resistance 100
Ditylenchus dipsaci
garlic
DD 214
heterophos 214
prevalence 123
resistance 123-124
onions
prevalence 123
resistance 123
plants, host range 23
potatoes, heterophos 530
strawberries
control 110
DD 214
heterophos 214
host range 110
hot water treatment 202
metam sodium 214
nematicides, various 229
Trifolium pratense, general account 138
entomophilic nematodes, *Amphimallon solstitialis* 604
free living nematodes
forest soils, seasonal variations 588
fresh water 1107
freshwater 178, 187, 196, 1109
ecology 800
wheat, monocultures, seasonal variations 571
Globodera rostochiensis, potatoes, control 515, 819
Harposporium, soil 227
Helicotylenchus, ornamental plants, greenhouses, new geographic records, losses 928
Helicotylenchus ryzhikovi, n.sp., *Pinus sylvestris* 650
Heterodera glycines, soyabeans, general account 820
Heterodera medicaginis, lucerne, losses 723
Heterodera schachtii
sugarbeet
control 840
pathology 741
Heteroderidae, plants, check list, Tajik SSR 937
Hydromermis borokii, *Chironomus plumosus*, morphology 649
Leipotylenchus secalis, n.sp., *Secale silvestre* 648
Limnomermis angustifrons, *Chironomus plumosus*, morphology 649
Longidorus elongatus
crops, population dynamic 242
sugarbeet
control 242
pathogenicity 242
Meloidogyne
larvae, soil, control solar energy 205
ornamental plants, prevalence 570

USSR *cont.*
Meloidogyne caraganae, n.sp., *Caragana turkestanica* 88
Meloidogyne incognita, *Allium pskemense*, new host record 3
Meloidogyne javanica, *Allium pskemense*, new host record 3
Meloidogyne turkestanica, n.sp., *Salsola richteri* 88
Merlinius salechardicus, n.sp., Arctic tundra 659
nematicides, official list 217
nematology, bibliographies 291
nematophagous fungi, soil 227
Paratylenchus hamatus, *Mentha piperita*, herbicides 841
Pheromermis rubzovi, n.sp., *Therioplectes carabagensis* 983
plant parasitic nematodes
cabbage 24
Carpinus betulus, seasonal variations 581, 588
crops
natural foci 329, 597
research 818
cucumbers 24
grapes, general account 833
grasses, general account 591
Linum usitatissimum, prevalence 578
Picea, seasonal variations 581
potatoes, crop rotations 243
Quercus, seasonal variations 581
soil, ecology 181
sugarbeet, crop rotations 790
vegetables 569
weeds, natural foci 329, 597
wheat, monocultures, seasonal variations 571
Pratylenchoides laticauda, cucumbers, new geographic record 24
Pseudhalenchus insolitus, n.sp., cucumbers 82
Quinisulcius brevistyletus, n.sp., *Pinus sylvestris* 650
Seinura filicaudata
cabbage, new geographic record 24
cucumbers, new geographic record 24
Tylenchorhynchus pini, n.sp., *Pinus sylvestris* 650
Tylenchus sandneri, cucumbers, new geographic record 24
Xiphinema americanum, raspberries, control, antagonistic plants 807
Xiphinema index, grapes, prevalence, virus infection 60
Vaccinium corymbosum*, *Xiphinema americanum, fenamiphos 852
Varotylus varus, n.g.,n.comb. 290
Vegetables
Ditylenchus
USSR
control 214
losses 214
Ditylenchus dipsaci, resistance 423
Meloidogyne
resistance 99, 423
rotations 230
Meloidogyne arenaria, India 30
Meloidogyne incognita, India 30
Meloidogyne javanica, India 30
plant parasitic nematodes
India, prevalence 6
Spain, check list 297
USSR 569
Rotylenchulus reniformis, China 93
Venezuela, *Hexamermis dactylocercus* n.sp., *Aeneolamia varia* 86
Verticillium*, *Pratylenchus penetrans, interactions 620
Verticillium chlamydosporium
Heterodera avenae, cereals, interactions 219
Meloidogyne incognita, *Piper nigrum*, biological control agent 968
Verticillium dahliae*, *Meloidogyne incognita, tomatoes, interactions 353
Verutinae, taxonomy 412
Verutus, morphology 412
Vetiveria, plant parasitic nematodes, India 551
Vicia cordata*, *Meloidogyne hapla, resistance 705
Vicia faba
Ditylenchus, German Federal Republic, seed contamination 485
Ditylenchus dipsaci, Poland 934
Heterodera schachtii, Finland, rotations 872
Vicia grandiflora*, *Meloidogyne hapla, resistance 705
Vicia sativa
Longidorus profundorum, pathogenicity 446
Meloidogyne hapla, resistance 705
Vicia villosa*, *Meloidogyne hapla, resistance 705
Vigna aconitifolius*, *Meloidogyne incognita, resistance 687
Vigna mungo*, *Meloidogyne incognita, resistance 1029
Vigna radiata
Meloidogyne incognita
aldicarb 526
carbofuran 526
organic fertilizers 1173
resistance 422, 1029
terbufos 526
Vigna unguiculata
Meloidogyne
Brazil, resistant varieties 708
soil amendments, cocoa pod husks 213
Meloidogyne incognita
organic fertilizers 1143
resistance 437, 719, 1029
mRNA synthesis 711
Meloidogyne javanica
Fusarium oxysporum, resistance 718
population dynamics 780
Peltamigratus amazonensis, n.sp., Brazil 630
Pratylenchus sefaensis
Meloidogyne javanica, *Rotylenchulus reniformis*, interactions 780
population dynamics 780
Rotylenchulus reniformis, population dynamics 780
Vinca minor*, *Meloidogyne hapla, China 7
Vineyards, *Xiphinema*, South Africa, surveys 4
Virgin lands
Criconemella curvata, Australia 592
Criconemella macrodora, Australia 592
Criconemella onoensis, Australia 592
Criconemella sphaerocephala, Australia 592
Discocriconemella, Australia 592
Virgin soils, *Paralongidorus australis*, Australia, surveys 594
Viruses
Nematoda, tobacco, interactions 53
Thaumamermis cosgrovei, Isopoda, associations 55
Xiphinema diversicaudatum
peaches, transmission 974
transmission 609-610
Vydate (*see* oxamyl)
Water (*see also* types of water)
aldicarb, residues 505
free living nematodes
German Federal Republic, coenoses 1122
India, pollution 1113
Weeds
Globodera rostochiensis, German Federal Republic, host list 301
Heterodera avenae, German Federal Republic, host list 301
Heterodera schachtii
German Federal Republic
host list 301
listed 924
Meloidogyne, India, surveys 929
Meloidogyne exigua, Brazil, new host records 583
Weeds *cont.*
plant parasitic nematodes, USSR, natural foci 329, 597
Rotylenchulus reniformis, Brazil, susceptibility 572
West Africa, plant parasitic nematodes, sugarcane, pathogenicity 127
Wheat
Anguina tritici
India, surveys 940
resistance 115
Bidera avenae, resistance 702
Bidera filipjevi, USSR, males, morphology 653
free living nematodes, USSR, monocultures, seasonal variations 571
Heterodera avenae
aldicarb 810
biological control, *Verticillium chlamydosporium* 835
carbofuran 810
chloethocarb 810
cultural methods 865
Czechoslovakia, ontogenesis 479
ethylene dibromide 142
nemadi 810
oxamyl 810
pathogenicity 142
Spain, cyst hatching 494
Sweden, rotations 516
Longidorus profundorum, pathogenicity 446
Meloidogyne naasi, resistance 706
Paratrophurus anomalus, Pakistan, new geographic record 584
plant parasitic nematodes
Australia, aldicarb 866
dazomet 947
Libya 947
Tropics, reviews 323
USSR, monocultures, seasonal variations 571
Willinema
diagnosis emended 373
keys 373
morphology 373
Willinema eburnense, n.sp., *Diospyros chevalieri*, Ivory Coast 373
Willinema indicum, to *Sclerolabia indica*, n.comb. 374
Willinema laopangense, n.sp., grasses, Cameroon 373
Willinema nanum, n.sp., *Diospyros chevalieri*, Ivory Coast 373
Willinema paraparvum, n.sp., grasses, Cameroon 373
Xenorhabdus
Heterorhabditis, *Pseudaletia unipuncta*, interactions 354
Neoaplectana, *Pseudaletia unipuncta*, interactions 354
Xenorhabdus nematophilus
Neoaplectana carpocapsae
Galleria mellonella
interactions 36
pathogenicity 967
Neoaplectana glaseri, interactions 52
Xenorhabdus nematophilus poinarii, *Neoaplectana glaseri*, Scarabaeidae 951
Xiphinema
apples, Switzerland, prevalence, distribution 933
forest trees, Japan, morphology 402
grapes
Algeria, prevalence 306
Switzerland, prevalence, distribution 933
Yugoslavia 926
soil, Spain, distribution, soil type 793
vineyards, South Africa, surveys 4
Xiphinema americanum
Aphanomyces, biological control agent 616
apples, UC 70480 829
Catenaria anguillulae, biological control agent 616
Lagenidium caudatum, biological control agent 616
Leptolegnia, biological control agent 616

Xiphinema americanum *cont.*
maize, host parasite interactions 577
peach rosette mosaic virus, grapes, transmission 973
raspberries, USSR, control, antagonistic plants 807
Vaccinium corymbosum, fenamiphos 852
Xiphinema barbercheckae, n.sp., grapes, South Africa 634
Xiphinema barense
n.sp.
olives, Italy 994
Rubus fruticosus, Italy 994
Xiphinema bergeri, morphology 370
Xiphinema bolandium, n.sp., grapes, South Africa 634
Xiphinema capense, n.sp., grapes, South Africa 634
Xiphinema chambersi, *Xiphinema simillimum*, forest trees, Japan, new geographic record 402
Xiphinema diversicaudatum
Arabis mosaic virus
apricots, transmission 56
grapes, German Federal Republic 975
peaches, transmission 56
morphology 401
reproduction, geographical populations 1080
Spain, geographical distribution, edaphic factors 1103
strawberry latent ringspot virus, transmission 350
viruses
peaches, transmission 974
transmission 609-610
Xiphinema dolosum, n.sp., grasses, Nigeria 370
Xiphinema fatikae, n.sp., *Sorghum*, Nigeria 370
Xiphinema index
carbofuran 879
fenamiphos 879
grapes, USSR, prevalence, virus infection 60
grapevine fanleaf virus, grapes, German Federal Republic 975
oxamyl 879
population dynamics 461
reproduction, effect of host 151
subnematicidal stress 879
Xiphinema italiae
morphology 401
Spain, geographical distribution 1127
Xiphinema loteni, n.sp., soil, South Africa 991
Xiphinema majus, n.sp., grasses, Nigeria 370
Xiphinema nigeriense, morphology 370
Xiphinema oryzae, n.sp., rice, Nigeria 370
Xiphinema oxycaudatum, morphology 370
Xiphinema pachtaicum, Spain, geographical distribution, edaphic factors 1103
Xiphinema rivesi
Aphanomyces, biological control agent 616
apples, UC 70480 829
Catenaria anguillulae, biological control agent 616
Lagenidium caudatum, biological control agent 616
Leptolegnia, biological control agent 616
Xiphinema rotundatum, morphology 370
Xiphinema simillimum, *Xiphinema chambersi*, forest trees, Japan, new geographic record 402
Xiphinema stockeri, n.sp., soil, Botswana 383
Xiphinema turcicum, Spain, geographical distribution 1127
Xiphinema vuittenezi
grapevine fanleaf virus, grapes, German Federal Republic 975
Petunia hybrida, experimental model, virus transmission 760
tobacco, experimental model, virus transmission 760
Xiphinemidae
France, distribution maps 914
Poland, distribution maps 915
Yugoslavia
free living nematodes, soil, ecology 1120
plant parasitic nematodes
forest soils, ecology 482
grapes 926
maps 911
Pratylenchus penetrans, lucerne 54
Xiphinema, grapes 926
Zelandodera, morphology 412
Zeuzera pyrina
Neoaplectana bibionis, biological control agent 336
Neoaplectana carpocapsae, biological control agent 336
Zingiber, plant parasitic nematodes 907
Zingiber officinale
Meloidogyne incognita, Brazil 320
Meloidogyne javanica, Brazil 320
Zinnia elegans, *Meloidogyne incognita* 1132

C·A·B INTERNATIONAL
PUBLICATIONS AND SERVICES

GENERAL INFORMATION

CAB International (formerly the Commonwealth Agricultural Bureaux) is an international non-profit organization controlled by governments of member countries. Its main function is to provide a world-wide information service in agriculture, forestry and related areas of applied biology, sociology, economics, engineering and medicine. Two other scientific services are responsible for pest and disease identification, and the application of biochemical techniques to pest management, and a further new arm – the Development Services – formed in 1986, co-ordinates CABI's consultancy expertise.
CAB International is best known for its abstract journals covering each of the main agricultural disciplines (for full list of titles see back cover). The wide range of other publications includes annotated bibliographies, reviews, authoritative books and reference works, and specialized aids to the management of pests and diseases.

Abstract Journals

The 46 abstract journals, which cover specific agricultural disciplines, specialist crops or products, or particular animals are all derived from the CABI production database. In 1987 input to the database will amount to approximately 130 000 records prepared from around 15 000 serials and many other scientific publications in virtually any language.

Annotated Bibliographies

Over 3000 Annotated Bibliographies on a wide variety of topics are available. Many are the result of requests and are in photocopy format with abstracts in chronological order but without indexes. Others, on particularly topical or popular subjects are typeset, the abstracts being classified and indexed; some are preceded by a review article. Annotated Bibliography topics may be extended to current awareness profiles to ensure that the information base is kept up to date.

Online Searching

The CAB ABSTRACTS database is available for online searching at DIALOG (USA), BRS (USA), ESA/IRS (Italy), CAN/OLE (Canada), JICST (Japan) and DIMDI (FRG). CAB ABSTRACTS contains 2 million records dating from 1972. The CABI production database, 6 weeks ahead of CAB ABSTRACTS, is available on the CABI 'GO-DIRECT' online service. Online retrieval is a highly cost-effective way of carrying out literature searches and provides users with a printout of records on their specific subjects. Search aids available include the comprehensive CAB ABSTRACTS Online Manual, the CAB Thesaurus and the CAB Serials Checklist.

Magnetic Tapes

The database is leased on magnetic tape on a calendar year basis by many organizations. The lease fee, payable in advance, includes usage up to a pre-set limit; additional usage is charged for at the end of the year. Current tapes are delivered monthly, and retrospective tapes as required. Technical data and sample tapes are available.

SDI Service

SDI (Selective Dissemination of Information) is a regular current awareness service based on the most recent input to the database processed at the CAB International computer centre, i.e. 6-8 weeks in advance of publication in the abstract journals or availability through international online vendors. Subscribers decide their own search profile and receive search results at intervals of their own choice, e.g. monthly, quarterly, even weekly. The search printout contains full bibliographic details and an informative abstract for each record retrieved.

CAB Alerts

This new service is based on the SDI service described alongside. A number of standard profiles on topics of current interest is being offered.

Microfiche

The SDI service is available on COM (Computer Output on Microfiche). Specific topics can be used to generate either subject series, containing full bibliographic details and informative abstracts, or author series containing the bibliographic details. The cumulative COM service is provided quarterly.

Diskette

CABI appreciates that many of its information users are equipped with microcomputers. The SDI service has been extended to diskettes for the convenience of CABI customers. Diskettes, containing current input to the CABI production database, are issued weekly, monthly or quarterly.

CD-ROM

CABI has produced a CD-ROM prototype which is now being assessed at over 40 key sites in 26 countries. User assessments, due June 1987, will be used to formulate CABI's future CD-ROM strategy. Information on this development is available from CABI Systems Division.

Document Delivery Service

The originals of most articles abstracted for the CAB ABSTRACTS database are available as photocopies. Order forms and copyright declarations are printed in each journal (or are available in bulk). Documents may also be ordered online via Dialog's DIALORDER or ESA's PRIMORDIAL.

Training

To help users get best value for money, CAB International provides user training and education. There is an annual course entitled 'Information on Agriculture' in Oxford, designed to give information officers and librarians, particularly from developing countries, a sound background in agricultural information practice. In addition, there are many one-day workshops in the USA, Europe and elsewhere, facilities for on-the-job training at the CAB International input centres, and tailor-made courses on data preparation for organizations supplying input for the database.

ORDERING INFORMATION

Journals

Subscriptions should be fully paid by 1 December for the volumes to be issued in the following year. Many journals are available at special rates to subscribers in member countries. A subscription provides entitlement to each part plus the annual index. Rates include packing and mailing by air to distant countries wherever the cost can be absorbed. Orders should be sent to the address below.
Back numbers, including microfiche editions, are available at discounted prices. Further details will be given on request.

Enquiries

For further information relating to any of our publications and services, write to:
Central Sales
CAB International
Farnham House, Farnham Royal
Slough, SL2 3BN, UK
Tel: Farnham Common (02814) 2662
Telex: 847964 (COMAGG G)
Cables: Comag Slough
International Dialcom: 84:CAU001

Printed by Unwin Brothers Ltd., The Gresham Press, Old Woking, Surrey, U.K.

C • A • B INTERNATIONAL
Farnham Royal, Slough SL2 3BN, UK
Telephone: Farnham Common (02814) 2281
Telex: 847964 (COMAGG G) Cables: Comag Slough
Telecom Gold/International Dialcom: 84:CAU001

The Leading World Information Service in Agriculture and Related Sciences

ABSTRACT JOURNALS AND SERIAL PUBLICATIONS 1987

Animal Science and Production

M Animal Breeding Abstracts
M Dairy Science Abstracts
A Index of Current Research on Pigs
M Nutrition Abstracts & Reviews
Series B — Livestock Feeds & Feeding
Q Pig News & Information
M Poultry Abstracts
Q Small Animal Abstracts

Veterinary Science and Parasitic Diseases

H Animal Disease Occurrence
M Helminthological Abstracts
Series A — Animal & Human Helminthology
M Index Veterinarius
M Protozoological Abstracts
M Review of Applied Entomology
Series B — Medical & Veterinary
Q Review of Medical & Veterinary Mycology
M Veterinary Bulletin

Crop Science and Production

M Cotton & Tropical Fibres Abstracts
M Crop Physiology Abstracts
Q Faba Bean Abstracts
M Field Crop Abstracts
M Herbage Abstracts
M Horticultural Abstracts
Q Irrigation & Drainage Abstracts
A Lentil Abstracts
B Maize Abstracts
M Ornamental Horticulture
M Plant Breeding Abstracts
M Plant Growth Regulator Abstracts
M Potato Abstracts
B Rice Abstracts
M Seed Abstracts
M Soils & Fertilizers
M Sorghum & Millets Abstracts
M Soyabean Abstracts
M Tropical Oil Seeds Abstracts
B Wheat, Barley & Triticale Abstracts

Forestry

M Forest Products Abstracts
M Forestry Abstracts

Crop Protection

Q Biocontrol News & Information
Q Bulletin of Entomological Research[1]
H Distribution Maps of Pests
H Distribution Maps of Plant Diseases
Q Helminthological Abstracts
Series B — Plant Nematology
M Review of Applied Entomology
Series A — Agricultural
M Review of Plant Pathology
M Weed Abstracts

Economics, Development and Sociology

Q Leisure, Recreation & Tourism Abstracts
Q Rural Development Abstracts
H Rural Extension, Education & Training Abstracts
M World Agricultural Economics & Rural Sociology Abstracts

Machinery and Buildings

M Agricultural Engineering Abstracts

Food and Nutrition

M Food Science & Technology Abstracts (published by the International Food Information Service — IFIS)
M Nutrition Abstracts & Reviews
Series A — Human & Experimental

Biotechnology

Q Biodeterioration Abstracts

Taxonomy

H Bibliography of Systematic Mycology
H Descriptions of Pathogenic Fungi & Bacteria
H Index of Fungi
H Systema Ascomycetum

Agriculture

T SPAN[2] (publisher J G R Stevens)

A = Annual B = Bi-Monthly
H = Half-yearly M = Monthly
T = Three issues/year Q = Quarterly
[1]Primary journal [2]Reviews